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The motivational factors of activity versus helplessness and the psychotherapeutic change

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SUMMARY

Aim. Many authors consider motivation as an important factor influencing psychotherapy outcome. There is a discussion, whether motivation is a stable construct or a dynamic process.

Material and methods. The purpose of the study was to investigate the dynamics of motivation and the relationship between motivation and clinical improvement during the inpatient integrative psychotherapy. The data was collected from 274 patients. The Questionnaire of Motivation, measuring: helplessness, activity, sense of wrongness, sense of threat, was a key tool. Measures for assessing the clinical and personality change were also applied: Symptoms Check List, Adjective Check List, Sense of Coherence. They were distributed at: the placement on the waiting list, the admission to the department and at the end of the 10-weeks therapy.

Results. Motivation showed the strongest influence on symptoms' level at the time of admission. The personality variables had stronger influence at the end of the treatment. All factors of motivation changed both during the waiting list period and the therapy. Helplessness, sense of wrongness and threat showed a steady decline. The level of activity rose significantly during the treatment, parallel to the clinical improvement. The helplessness motivational factor was predominant at both pre-treatment occasions.

Conclusions. Assessment of motivation should be recognized as a standard procedure at the different stages of therapy. The most efficient way of strengthening the internal motivation is active participation of the patient in his/her therapy process.

integrative psychotherapy / motivation / activity / helplessness / change

INTRODUCTION

Motivation is a polymorphic, complex and difficult to conceptualize phenomenon, described in detail elsewhere [1, 2, 3]. Sifneos [4] defined motivation to psychotherapy as "process of solving the problems, in the purpose of controlling the painful feelings and of achieving gratification". He underlined that adequate motivation is required in order to facilitate the patient in enduring active participation in the process of therapy. Frequent experiencing of motivational conflicts and incompetence of resolving them may lead to anxiety, depression or psychosomatic symptoms. Motivation was found as an important factor influencing the psychotherapy process and outcome [5, 6, 7, 8, 9, 10]. Many studies report a significant correlation between initial motivation and psychotherapy outcome [11, 12, 13].

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AIM OF THE STUDY

The authors understand motivation to psychotherapy as a complex and multidimension-

al phenomena, where such factors as activity, helplessness, sense of wrongness and sense of threat play the most significant role. The aim of the study was to investigate the dynamics of motivation and the relationship between motivation to psychotherapy and clinical improvement during the inpatient integrative psychotherapy, rooted in psychodynamic, cognitive, behavioural and humanistic theories. Three hypotheses were formulated:

Motivation is a dynamic process both during therapy and during the waiting list period.

There exists a relationship between the symptoms decline and motivation dynamics during the treatment. The role of motivation in gaining the symptomatic change is the most significant at the beginning of treatment.

There exists a relationship between motivation and the sense of coherence and between motivation and some personality factors.

MATERIAL AND METHODS

Participants

The authors distributed the questionnaires to all 322 patients successively starting the inpatients treatment between 1999 and 2002. 274 of them finished therapy and returned all the tests completed. 18 patients finished the treatment, but they returned the test uncompleted. 30 patients dropped-out from the treatment and did not return the questionnaires from the last stage of the project. Results in this study were calculated for N=274. Among 274 patients, there were 72.6% women and 24.7% men. As for the age: 38.32% were younger than 24 years old; 31.75% were aged between 25 and 34 years old, 14.23% between 35 and 44 and 15.7 % were between 45 and 55. 51.5% of the patients were diagnosed with anxiety, somatoform and stress related disorders; 27.0 % with eating disorders; 15.7% with personality disorders and 5.8% with dysthymia. The diagnostic process was based on *the International Classification of Diseases – 10*.

Procedure

The questionnaires were administered three times: **T 1** - during the initial interview before placement on the waiting list: MQ and HSCL; **T 2** - on the admission to the Clinic: MQ, HSCL, SOC and ACL; **T 3** - at discharge (the end of the 10-weeks therapy): MQ, HSCL, SOC and ACL. The average waiting time between the initial interview and the beginning of treatment was six months.

Assessment Instruments

The Motivation Questionnaire (MQ) [14] was designed to assess motivation of patients treated with integrative inpatient therapy. Using factor analysis, the authors of the MQ separated four factors: **activity** – defined by expectations and attitudes, based on readiness to learn, with a high value achieved by patients conscious that the illness negatively influenced their life and with a low level due to external motives, e.g. family pressure; **sense of wrongness** – high among people who have external motivation, tendency to view themselves as permanent victims, often aggravating their symptoms and tending to separate symptoms from the psychological context; **helplessness** – often the main motive to start the therapy, it is high when a patient is convinced that it is impossible to deal with his/her discomfort and frustration on his/her own; **sense of threat** – understood as being endangered by illness, it is high when a patient doesn't acknowledge the psychological background and he/she is expecting merely medical help.

MQ was normalized in the population of the Department of Neurotic Disorders patients, on the sample of 488 people in years 1982-1986. Norms of MQ were expressed in the stanin standard scale, based on STANdard score and NINE levels. Statistical stability of MQ is expressed by mean correlation = 0.50. The span of possible results is: for activity 70 (14-84), for sense of threat 55 (11-66), for helplessness 40 (8-48), for sense of threat 30 (6-36).

Symptoms Check List (SCL-90) [15] measures seven groups of symptoms: agitated depression, retarded depression, somatization, aggression-hostility, obsession–compulsiveness, phobia-anxiety, interpersonal sensitivity. Polish version of SCL [16] was normalized on a group of 40 people. As normative studies, we accepted also data from papers describing application of the list to other populations. Internal congruency calcu-

lated with α-Cronbach coefficient for particular subscales differs from 0.82-0.90. Test-retest reliability revealed the correlation for seven subscales between 0.7273 and 0.8711 ($p<0.0001$). Inter-rater reliability indicated high congruency in symptoms estimation and patients behaviour, coefficient ranges from 0.64 to 0.80 [15].

Sense of Coherence Questionnaire (SOC-29), [17] measures three components: sense of comprehensibility, sense of manageability and sense of meaningfulness. Polish adaptation of SOC is characterized by good psychometric qualities: stability 0.83 in duration of 2 weeks, internal congruency alpha = 0.87 studied in the sample of 1066 persons. α-Cronbach – for the whole scale: 0.852, for the subscales: 0.724-0.747. Test-retest reliability proved that test-retest correlations for 3 components of SOC were ranged between 0.723–0.834 ($p<0.001$). Normative data is as follow: scatter 63-203; mean 132.4-160.4; standard deviation 16.7-26.5; variance coefficient 0.104-0.199.

The Adjective Check List (ACL) [18] and it's Polish adaptation [19] measures various aspects of the personality, also as a the psychotherapy outcome, corresponding with self-confidence, self-control, autonomy, creativity and personal adjustment. ACL provides also additional information of about motivation through the scale of "counseling readiness". Internal congruence based on coefficient α-Cronbach for the population of 588 women, for particular subscales, ranged from 0.53 to 0.94. Correlations of test-retest reliability for the 37 subscale ranged 0.45-0.86, the mean correlation was 0.65. Reliability and stability of scales was 0.6-0.77. The Test was normalized on the group of 5238 men and 4144 women. As an average, the results were recognized in means between 41-59 [18].

The psychotherapeutic programme

The psychotherapy process took place at the inpatient ward of the Department of Neurotic Disorders and Psychotherapy of the Institute of Psychiatry and Neurology in Warsaw. The theoretical approach and therapeutic techniques of the integrative short term intensive psychotherapy applied there are based mainly on social-learning, psychodynamic, cognitive-behavioural theories and humanistic approaches. This integrative procedure was not based on any manual. The ten week treatment course provides a wide spectrum of methods provided to each patient: individual (1 session/week) and group psychotherapy (3 sessions/week), psychodrama, music therapy, choreotherapy, art therapy, occupational therapy (all of them 1 session/week). In some cases of obsessive-compulsive disorders, eating disorders and borderline personality pharmacological treatment is applied simultaneously [20]. This factor was not taken into consideration in this research.

Statistical procedures

The programme SPSS-PC-10 was used. The following statistical tools were applied: T-Student test, step wise regression and one way analysis of variation. The research group fulfilled the criteria of normal distribution.

RESULTS

Dynamics of motivation

Activity is the only factor, which increased during the therapy (mean difference: 0.9337). During the period between the initial interview and admission to the clinic – the activity dimin-

Table 1. Means of motivational factors (MQ) at T1, T2,T3

		Mean	SD	t (1–2)	T (1–3)	t (2–3)
Activity	**T 1**	**64.3373**	8.4002	1.483	-1.88	-.501
	T 2	**63.7578**	7.3589			
	T 3	**64.6914**	8.2445			
Helplessness	**T 1**	**36.9040**	6.1297	2.742	1.422	3.448
	T 2	**35.9883**	6.3533			
	T 3	**35.4375**	6.2519			

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sense of wrongness	**T 1**	**40.5221**	8.3396	3.727	4.598	7.407
	T 2	**38.6797**	7.9537			
	T 3	**36.8164**	8.1972			
sense of threat	**T 1**	**28.3840**	4.1716	3.700	3.668	6.245
	T 2	**27.5000**	4.5890			
	T 3	**26.6875**	4.5988			
N=274. **p<0.0001**						

SD – standard deviation; t – Student's test (difference between means)

ished (mean difference: -0.5795). The other motivational factors: helplessness, sense of wrongness and sense of threat declined both during the psychotherapy and the waiting list. Sense of wrongness had an exceptionally prominent decline (mean difference: -1.8633). All the motivational factors changed significantly, both during the therapy time and waiting list period (in each case p<0.0001).

Relationship between symptom change and dynamics of motivation

The intensity of all groups of symptoms diminished significantly (in each case p<0.0001). This refers both to waiting list period (T1-T2) and psychotherapy (T2-T3). Most of them diminished more during psychotherapy than during the waiting list period. Aggression-hostility is the only exception. This group of symptoms diminished more during the waiting list period than during therapy. Aggression-hostility declined the least during psychotherapy. Interestingly, interpersonal sensitivity and agitated depression diminished a great deal during psychotherapy, while there was nearly no decline during the waiting list period.

The combination of a decline in helplessness and an increase in activity is the most common motivational factor explaining the symptom decline during the psychotherapy (between admission and discharge from the clinic). The sense of wrongness decline has some influence in the case of aggression-hostility elevation, and the sense of threat in the case of somatization. All the symptoms, except obsession–compulsive-

Table 2. Means of symptom groups levels (SCL) at T1, T2, T3.

		Mean	SD	t (1–2)	t (1–3)	t (2–3)
global score	**T 1**	**24.7571**	5.4049	5.583	12.204	8.611
	T 2	**23.3779**	5.6682			
	T 3	**20.9165**	5.2400			
aggression-hostility	T 1	**23.2762**	6.5461	4.542	4.209	7.518
	T 2	**21.7275**	6.3289			
	T 3	**20.3041**	5.4670			
retarded depression	T 1	**27.6390**	6.9367	5.504	6.038	9.800
	T 2	**25.7159**	6.9898			
	T 3	**23.2257**	6.7915			
agitated depression	T 1	**26.5503**	6.3005	2.804	7.479	9.207
	T 2	**25.6123**	6.6426			
	T 3	**22.8629**	6.2828			

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obsession–compulsiveness	T 1	**24.9662**	6.9541	4.877	7.491	10.766
	T 2	**23.3577**	6.9679			
	T 3	**20.9215**	6.5479			
phobia-anxiety	T 1	**23.8325**	8.4069	6.854	7.024	13.036
	T 2	**21.4274**	8.1804			
	T 3	**18.7672**	7.3046			
interpersonal sensitivity	T 1	**24.1740**	7.6851	7.525	7.257	7.038
	T 2	**23.9937**	7.6724			
	T 3	**21.0949**	6.8795			
somatization	T 1	**23.0630**	6.8780	2.942	7.315	10.422
	T 2	**22.0438**	7.1852			
	T 3	**19.3900**	6.6144			
N = 274. **p < 0.0001**						

SD – standard deviation; t – Student's test (difference between means)

Table 3. Relationship between symptoms decline and motivation (based on step wise regression).

Decline ↓ during psychotherapy (T2-T3) of	... is explained by the motivational factors dynamic during therapy (T2–T3), (based on adjusted R)	Standardized Coefficient Beta	t
global score	23.1% helplessness↓ . activity ↑	0.51 / -0.19	8.83 / -3.27
aggression-hostility	19.4% helplessness↓ . activity ↑. wrongness↓	0.41 / -0.25 / 0.161	6.84 / -4.07 / 2.63
retarded depression	12.7% helplessness↓ . activity ↑	0.50 / -0.21	8.72 / -3.65
agitated depression	22.8% helplessness↓ . activity ↑	0.38 / -0.18	6.14 / - 2.90
obsession–compulsiveness	9.7% helplessness↓ .	0.32	5.34
phobia-anxiety	6.5% helplessness↓**.**	0.26	4.34
interpersonal sensitivity	13.5% helplessness↓ .	0.37	6.40
somatization	10.4% helplessness↓. threat ↓	0.24 / 0.16	3.63 / 2.50
N = 274, **p < 0.0001**			

↑ - increase, ↓ - decline

ness and phobia-anxiety were explained by motivational factors with R2>10%. All the results are statistically significant at the level p<0.0001.

At the admission time – majority of symptom levels are dominantly explained by motivational factors. Only aggression-hostility and agitated depression are explained by coherence (manageability). Obsession-compulsiveness is the only group explained dominantly by personality factors. At the time of discharge – motivational factors play dominant role only in the case of phobia-anxiety and somatization. Coherence is dominantly influencing retarded depression and agitated depression. Majority of symptoms at discharge are explained by personality factors.

Motivation and coherence – and motivation and personality factors

Only one motivational factor decline in helplessness is explained by an increase of coherence or personality needs with R2>10%, and with eminently statistic significance.

Table 4. Dominant influence of motivation, coherence and personality factors on the symptom level at T 2 and T 3 (based on step wise regression and on adjusted R)

	at T 2 *is mainly explained by*			**at T 3** *is mainly explained by*		
Symptom	**motivational factor**	**personality factor**	**coherence**	**motivational factor**	**personality factor**	**coherence**
global score	***helplessness, sense of wrongness, activity 42.1%***	affiliation, autonomy, abasement, creative personality 28.5%	coherence, meaningfulness 39.1%	helplessness, sense of wrongness, activity 28.6%	***ideal self image, affiliation, abasement, dominance, autonomy, nurturance, personal adjustment, order 35.8%***	coherence 32.7%
aggression-hostility	helplessness, sense of wrongness 19.8%	affiliation, introspection, dominance, exhibitionism, self control, ideal self image 26.3%	***manageability, coherence 30.4%***	helplessness, sense of wrongness, activity 20.2%	***ideal self image, self control, affiliation, achievement 26.4%***	manageability, comprehensibility 25.3%
retarded depression	helplessness, activity, sense of wrongness, 40.4%	affiliation, abasement, exhibitionism, introspection, self control 35.1%	***coherence 45.2%***	helplessness, activity 30.0%	ideal self image, affiliation, abasement, autonomy 34.5%	***coherence 39.3%***
agitated depression	***helplessness, sense of threat 25.8%***	abasement, affiliation, dominance, creative personality 17.5%	coherence, meaningfulness 23.8%	helplessness, activity, sense of wrongness 14.2%	ideal self image, affiliation, endurance 16.7%	***coherence 20.3%***
obsession–compulsiveness	helplessness 26.7%	***ideal self image, change, abasement, affiliation 28.2%***	***coherence 26.3%***	helplessness, activity, sense of wrongness 14.6%	***ideal self image, counselling readiness, abasement 25.7%***	coherence 21.4%
phobia-anxiety	***helplessness, sense of threat 23.7%***	creative personality, affiliation, abasement, achievement 13.4%	comprehensibility, manageability 14.3%	***helplessness, sense of threat, activity, sense of wrongness 16.9%***	ideal self image, order, personal adjustment 11.8%	comprehensibility 13.4%
interpersonal sensitivity	***helplessness 38.0%***	affiliation, abasement, introspection, endurance, counselling readiness 33.3%	coherence 33.2%	helplessness, sense of threat, activity, sense of wrongness 27.2%	***ideal self image, personal adjustment, succorance 28.4%***	coherence, meaningfulness 26.5%
somatization	***sense of threat, helplessness 22.0%***	creative personality, affiliation, nurturance, autonomy 13.2%	manageability, comprehensibility 11.0%	***sense of threat, helplessness, activity, sense of wrongness 21.6%***	ideal self image, endurance 13.4%	comprehensibility 11.4%

The most dominant variables were bolded and italicized.

Standardized Coefficient Beta – ranges from -0.28 to 0.62. t– ranges from -4.52 to 9.03

Table 5. Motivation – coherence and personality factors (based on step wise regression)

Dynamic of motivational factor during psychotherapy (T2-T3)	... is explained by (base on adjusted R).	Standardized Coefficient Beta	t
activity ↑	2.1 % coherence ↑ p 0.631 6.8 % needs: deference↓, exhibitionism ↑	-0.14 0.28 / 0.20	-2.01 4.00 / 2.97
helplessness ↓	18.6 % coherence ↑ 12.3 % needs: affiliation↑, abasement ↓	-0.44 -0.26 / 0.19	-7.55 -3.96 / 2.89
sense of wrongness ↓	4.6 % manageability ↑ 1.7 % needs: deference↓, p .027	-0.22 -0.15	-3.59 -2.22
sense of threat ↓	6.3 % comprehensibility ↑ 2.5 % needs: achievement ↑ p 0.011	-0.26 -0.17	-4.17 -2.57
N = 274, p < 0.0001 (if not indicated otherwise)			

↑ - increase, ↓ - decline

DISCUSSION

Dynamic of motivation

All the motivational factors (activity, helplessness, wrongness, threat) have changed significantly both during therapy and waiting list periods, which corresponds with other studies [4, 9, 10, 20, 21]. Dean [23] claimed on the contrary, that motivation is a stable pattern of the patient. However, he based his assumption on quite a small sample.

Our results show interesting findings: the activity factor increased, while the helplessness, sense of wrongness and sense of threat – all declined. This may be interpreted as desirable psychotherapy outcome due to the process of active learning [20]. Also, the reduction of the sense of threat is sometimes understood as a positive psychotherapy outcome, at least for those individuals for whom motivation for change is activated by the sense of threat [24], and who learn during therapy how to predict and subsequently reduce the threatening stimulus [25, 26].

Techniques, which help the patient to feel understood and relieved, which support him in undertaking new behavioural strategies – strengthen the motivation to participate actively in the therapy. They are crucial for the final therapy outcome [27, 28, 29]. This process may be achieved through considering together with the patient, what is the real problem and how it is experienced, whether it is possible to achieve the desirable state, if there are any competitive motives. Still, it ought to be remembered that, as Luborsky [7] underlined, although motivation is a significant predictor of the successful psychotherapy outcome, it can't be treated as the only one.

The remarkable increase of the activity factor was already shown to be the most influential determinant of psychotherapy outcome [30, 31, 32], and an active engagement aspect of motivation may predict both successful and unsuccessful cases, as indicated by Hoglend [33]. Therefore his conclusion, that patients should be told why it is important for them to actively test alternative problem-solving strategies during and after therapy, seems to be of special clinical importance.

The decline of the sense of helplessness factor and increase of the activity factor may be understood as a result of shift in patients beliefs and attitudes from a helpless belief of being in a "trap" situation, towards an experience of capability to influence his/her own life. Helplessness at admission may be considered as a motivation, as it was conceptualized by Deci and Ryan [21]. Not acknowledging the connections between behaviour and its consequences, may lead to the lack of sense of any activity and to helplessness. The higher level of the helplessness factor at the beginning of treatment, may just be connected with a sense of weakness in

the face of unresolved internal motivational conflicts [34]. The significant role of the helplessness factor at the beginning of treatment may be also explained as an external locus of control, quite common among patients before therapy [35]. Therefore some researchers [36] indicate that a decision concerning the type and course of therapy should not be made until the assessment of helplessness is made.

Decline of the activity factor while waiting for the therapy is probably the result of a tendency to wait for external help, acquired by the patient during his life experience. Decline during the treatment in the sense of the wrongness factor is the biggest of all, probably due to patients gradually acknowledging their own contribution to the symptom formation and gaining an internal locus of control. It is probably supported by the process of strengthening the internal motivation.

Relationship between symptom change and dynamics of motivation

The correlation between the symptom decline and motivation dynamic during the treatment, was demonstrated and the role of motivation in gaining the symptomatic change was found as the most significant at the beginning of treatment. Other researchers also observed a strong correlation between initial motivation and the psychotherapy outcome [11, 13] and between general motivation and psychotherapy results [4, 6]. A few studies which did not prove the significant correlation between initial motivation and the psychotherapy outcome, were all conducted on small research groups [37, 38].

Sense of helplessness seems to play a crucial role at the start of process of change. Change of activity and helplessness mostly influenced the global score of symptoms change and agitated depression symptoms. To the smaller degree, the change of helplessness and threat explain the change of somatization and a change of helplessness and activity - change of retarded depression.

Sense of threat factor and somatization are closely connected. The more the patient is aware of the illness and threatening dynamic of symptoms, probably the more he is willing to engage in effort of change, in spite of suffering and the uncertainty of the future.

The decline of sense of wrongness factor significantly influences the changes in aggression-hostility symptoms group. Probably people who were mistreated in the past have difficulties in controlling aggression-hostility. The decline of the sense of wrongness during psychotherapy may reflect the patient's tendency towards no longer passive waiting for help and demanding it. In such a case internal motivation plays a more important role than an external one.

The obsessions-compulsion is the only group of symptoms which is more correlated with personality factors than other variables – both at the admission and discharge. It may be interpreted as a psychopathological tendency towards perfectionism, described partly as anancastic personality and probably indicates to the role of biological factors in these symptoms formation [39]. Also other studies [40] indicate that obsessive-compulsive symptoms are much more reflected by personality factors and are not significantly related to motivational factors.

Strong initial correlation between motivation and the symptom level diminished during the psychotherapy process, and the role of personality factors increased. Such phenomena were also observed in short-term psychodynamic psychotherapy [41]. The initial high motivation seems to be a beneficial prognostic for gaining insight, emotional abreaction and behaviour reorientation. Motivation still influenced the symptoms level at the end of treatment, due to the relation between general motivation for life and/or for further psychotherapy after discharge from the clinic.

Motivation and coherence – and motivation and personality factors

We found a strong correlation between motivation and the sense of coherence – and between motivation and personality factors. However, only the decline of the sense of helplessness is statistically significantly explained by the coherence components and personality factors. Probably helplessness contributes to a better understanding of the patient's own situation (gaining insight) and facilitates an active search for resources, described as coherence components: comprehensibility, manageability and meaningfulness in the relation to the external world.

Decline of the need for abasement (tendency to self-accusation) and increase of need for affiliation (searching for personal relationships) may (in a circular way) strengthen motivation for change, especially for those patients who decide to undergo treatment mainly because of experiencing helplessness.

A surprising result was in that the increase of activity motivational factor was not explained significantly by any coherence component. The authors expected the contrary findings, because Antonovsky [17] stated that sense of meaningfulness expresses a motivational part of coherence. The discrepancy may be due to different conceptualization of general motivation as described by Antonovsky and the motivation to psychotherapy. Probably Antonovsky and authors of MQ [14] conceptualized motivation and its aspects differently. Also, Heine [42] indicated that meaningfulness as a component of coherence may be reflected more than in anything else, by existential variables such as self-esteem threats, or feelings of uncertainty.

Limitations

This study aimed to explore complex motivation dynamics which may be difficult to capture in the single study. It is important to admit that because of the absence of a control condition, any change observed cannot be definitively ascribed to the treatment and cannot be generalized to other populations of patients. Probably the complex nature of motivation requires the concentration not only on the patient variables, but on the therapist characteristics and psychotherapy process factors also. However, the replication of this particular study is seriously limited due to the therapy process not being based on a manual. In spite of the above limitations, this paper serves as an important opening to an understudied field of psychotherapy outcome research.

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