Structure of motivation for treatment and compliance in psychiatric patients. / N. B. Lutova, M. Yu. Sorokin, V. D. Wied // Dynamic Psychiatry of Gunter Ammon. Identity through the Group / ed. by N. G. Neznanov, A. V. Vasileva. – Saint-Petersburg: Alta Astra, 2018. – C. 245-254.

Structure of motivation for treatment and compliance in psychiatric patients.

Saint-Petersburg Scientific Research Institute n.a. V.M.Bekhterev.

Seemingly natural wish of a person to be healthy and not to suffer because of illness symptoms in case of mental disorders is far from being inducing the active patients' appeal for doctor's help. In the psychoanalytic theory the questions of human behavior's motivation have always been in the focus of the researchers' attention. Already S.Freud considered as a key condition for the successful treatment of a mental disorder to be the presence in the patient not of the will or desire for convalescence, but of the "need to become healthy". The sources of such a need might be both intrapsychic mechanisms related to a subject-specific suffering and the influence of the whole spectrum of external to the patient's personality factors, motivating to the behavior change.

Developing the Freud's theory on the unconscious needs, O.Kernberg argued that it is necessary to consider affects as the primary human motivation system since they are elementary manifestations of the vast variety of child's drive-emotional reactions to early object relations. The totality of affects in the course of their differentiation, subjectivisation (ego- and object-representation) and cognitive processing results in the forming of the more complex organized drives determining the mature human behavior based on the amassed affective experience. According to the H.Kohut's theory, the leading intrapsychic motivation mechanism becomes not so the diversity of human affective experience, but the necessity of the Self-development due to the immature grandiose Self's tendency to obviate the narcissistic traumatization in the system of child's relation with the idealized parental objects. K.Horney also believed neurotic mechanisms to be the consequence of human relations' disorganization, while the patient's motive to development derives from his constructive energy, inducing personality to move toward internal freedom. The deeper analysis of the primary (family) group dynamics brought G.Ammon to the conclusion that the primary human mental dynamics factor is social energy directing the identity development through its active ego-delimitation from the social milieu. The presented conceptions describe the so-called continual aspect of human motivation determining the area of possible personality motives' sources.

Another important feature of human motivation area, most sharply demonstrating itself in the treatment of mental disorders is its process nature. Thus, motivation, initially sufficient for an appeal for medical help, can endure considerable changes in the course of treatment. S.Freud wrote about the negative therapeutic reactions (NTR) where an archaic guilt feeling due to the success achieved in the course of treatment, resulting from the superego may, contrary to the therapist's expectations, lead to a secondary exacerbation. O.Kernberg found a

specific type of the narcissistic personality disorder's secondary gain, where sufferings due to the imperfection of the patients' actual personality organization are compensated by the superior sadistic ego-syntonic satisfaction, derived by the patients in the course of therapy and capable to stop the productive personality changes. The idealizing mirror transference (according to H.Kohut) can negatively influence the treatment of patients with a pronounced narcissistic feature. An excessive patient's envy to the therapist's success, resulting in the patients' aggressive destruction of the achieved results is described in details by the authors of the kleinian object relations school. It is most necessary here to contain (according to W.Bion) aggression directed towards the therapist. It makes it possible further deployment of therapeutic relations' dynamics wherein M.Klein differentiated three directions. In the manic type of the injured by the patient object (therapist) repair the defence from the fear to lose the object and from feeling of guilt for aggression comes about due to a fantastic denial by the patient of the therapeutic relations' reality and of the therapist's intrinsic value. The obsessive repair type is also mediated by the omnipotent control mechanism, expressed by the patient's repetitive attacking the therapeutic relations. Finally, the true attacked object-therapist's repair is due to the experienced grief by the patient enabling him to establish a contact with reality. D.Winnicott considered such mechanism – transition to the use of the object – to be the most important stage of the mental development and, accordingly, of the successful therapy. It is here essential to be stressed that correct reality testing and wish to get treatment due to it, supported by the adherence to the doctor's recommendations, takes place only in one of the three presented ways of overcoming the NTR. G.Ammon has also stressed the importance of patient's confrontation in the course of therapy with his destructive behavior patterns, however as a key condition of this tactic's efficiency he believed to be the establishment of the safe therapeutic milieu around the patient, enabling the working through of the symbiotic conflict in the primary group. That's why in the dynamic psychiatry theory the most important factors are therapist and group therapeutic milieu, since the therapist's personality with his standpoint (which the patient begins to follow) and the therapeutic group's interests become the sources of the external motivation before the stabilization of the patient's internal motivation.

Thus, apart from the sufficiently detalized in literature factors as insight in mental disorders' deficiency, negative symptoms, secondary illness gain by the obtaining by the patient of different forms of social support, the therapeutic process is also essentially influenced in mentally ill by the existing specificity of motivation for treatment sources and their temporal perspectives.

A feature of motivational factors is their mainly intrapsychic nature, being nevertheless based upon and remaining densely interrelated to the person's social relations dynamics. Though up to now there persists a deficiency in the evidence based studies of the motivation for treatment structure in patients with severe borderline and psychotic disorders, and also of its interrelations with different aspects of therapeutic process. The key reason for this is the absence of reliable

and objective instruments which would enable to carry out such a study. The existing psychometric scales and questionnaires focus themselves upon either the reductionistic quantification of the motivation for treatment or are intent to analyze some one of its qualitative aspects based on either continual or process approach. Of some problem are also the methods to objectify the treatment process deficiencies, which are met by both participants of therapeutic relations.

The objective and tasks of the study.

The objective of the study is the research into typology of the motivation for treatment structure and of the adherence to therapy in patients with severe mental disorders. For the attainment of this goal following tasks were formulated: the development of the instrument for the multiparametric assessment of the mentally ill patients' motivation for treatment; the study of interrelations of different motivation structure types with general adherence to treatment (compliance) index and with primary compliance subsystems – attitude to medication, factors related to patient, doctor and patient's environment.

Material and methods.

In the study took part 230 patients treated at the department for the integrative pharmaco-psychotherapy of patients with mental disorders of the Bekhterev Psychoneurological Research Institute (St. Petersburg). The analysis of the interrelationships between socio-demographic and clinical parameters of the patients has been carried out upon the sample of 91 patients (34 male and 57 female) who were assessed with the final version of the questionnaire for the assessment of motivation for treatment. High-school education have received 23 patients, 20 were college and 48 university graduates. 30 patients were married and 61 unmarried. According the ICD-10 items the patients were distributed as follows: F2 (schizophrenia) – 69, F3 (affective disorders) – 8, F4 and F6 (neuroses and personality disorders) – 8, F0 (organic disorders) – 5. An average hospitalization rate – 4.

An original questionnaire for the assessment of the motivation for treatment is based upon the patient's motivation for psychopharmacology scale, developed at the department of the integrative pharmaco-psychotherapy (Lutova, Sorokin, 2014; Sorokin, Lutova, Wied, 2016). The instrument allows to assess the general motivation for treatment intensity in mentally ill patients and also to reveal its structure's features based upon both the continual approach – according to the intensity of expression of specific motivation patterns of the hierarchical motivation scale (from the 1-st level - absence of motivation through the formal consent to get treatment, development of the external, then internal motivation up to the 6-th level - stable motivation for the longstanding pharmaco-psychotherapy), and the process approach – according to 4 questionnaire factors (psychoeducative component of the internal disease picture, insight into the treatment necessity, insight into psychological mechanisms of the morbid maladjustment and willingness to an active participation in the treatment process. There also was used the Medication Compliance Scale (MCS; Lutova, Neznanov, Wied, 2008). It is filled by the doctor with the use of the ample information about the patient

(anamnesis, clinical state, subjective patient's attitude to medication, the data on the objective supervision of drug intake in the clinic and after discharge). The use of MCS allows to reveal an individual profile of psychological deficits conducing in the long run to a general decrease of the adherence to a recommended medication regimen.

The obtained data were analyzed with the statistic SPSS programme package. For the assessment of the instrument were calculated the coefficient of interclass correlation of the questionnaire items and Cronbach-alpha. There was applied a factor analysis including the main components method, Varimax rotation and k-mean method of cluster analysis. There were used descriptive statistics, the method of the one-factor dispersion analysis (ANOVA) and Student t-criterion were used for the comparison of parametric data; the Kruskal-Wallis H-criterion and Mann-Whitney U-criterion for nonparametric data; Pearson Chi-square for nominal scales. For the assessment of distribution parameters was applied Kolmogorov-Smirnov z-criterion. For visibility and uniformity all the results of analysis were presented with their mean values ($M \pm S.D.$).

The study procedures.

On the first study stage there was developed the Questionnaire for the assessment of motivation for treatment, based upon the Motivation for psycho-pharmacotherapy scale, allowing the differentiated standardized analysis of the intensity of specific motivation patterns in respect to psycho-pharmacotherapy in mentally ill patients. The scale represents 6 levels of motivation for treatment reflecting its qualitative dynamics: 1 – motivation is absent, formal consent to get treatment, 2 – primarily external motivation determined by the patient's environment stimulation, 3 – development of the patient's own motivation for treatment founded by the subjective suffering from disease, 4 – stable internal motivation for treatment, deliberate appeal for mental health care, 5 – motivation based upon the correct internal disease picture and understanding of the necessity of the personal participation in the optimizing of a social adjustment along with the carrying out of pharmacotherapy, 6 – stable motivation for the longstanding psycho-pharmacotherapy. Initially the questionnaire included 24 items referring to the 6 motivation for treatment levels and 5-point Likert-scale for the assessment of the each item's significance and also of the sum total. After the analysis of the consistence of the questionnaires' items based on the investigation of 139 patients there were excluded 4 items negatively influencing the final results dispersion, which brought about the increase of the Cronbach-alpha from 0,825 to 0,873. The excluded items have diminished the items quantity addressed to every motivation level down to 3 in the 1,2,5 and 6 levels. In view of the preservation of the content validity of the questionnaire there was included an additional item referring to the 5^{th} motivation level. After the repeated analysis of the internal consistency of the questionnaire based on the results of 173 (82 re-test) investigations there appeared a necessity to exclude one more item referring to the 1^{st} motivation level. This brought about the increase in Cronbach-alpha criterion from 0,811 to 0,842. Thus there were corroborated high indices of the internal consistency of the final

questionnaire's structure consisting of 20 items – 2 for the 1st motivation level, 3 for the 2nd and 6th levels, 4 for the 3rd, 4th and 5th levels of motivation for treatment.

The re-test reliability of the questionnaire was verified along its use in the repeated investigation of 82 patients. There was computed the inter-class correlation coefficient (ICC) reflecting the connection grade of the results of the first and second testing. The obtained results were 0,204 to 0,451 for the subscales (motivation levels) and 0,501 for the sum total index of motivation for treatment ($p \leq 0,05$). The results of the statistical analysis have corroborated on the high significance level the coherence of the results of the first and repeated tests. This speaks for the sufficient stability of the data obtained with the questionnaire in the course of its repeated use for the assessment of motivation in one and the same patient and also for the reliability of the obtained quantified data on the psychological construct studied with the use of the questionnaire.

The factor analysis with Varimax rotation was used to distinguish an optimal quantity of the primary components of the questionnaire for the assessment of the motivation for treatment. One of the factors consisted of 5 items of the questionnaire with factor loadings from 0,580 to 0,723, semantically united by questions on the receiving of knowledge and behavior skills upon the manifestation of the disease; another consisted of 6 items with factor loadings from 0,435 to 0,712, associated with awareness of the disease and the need for treatment. The following factor consisted of 4 items with factor loadings 0,612 – 0, 742, referring to the understanding by patients of the cause-and-effect connections between their behavior, emotional state and development of disease. Finally, the last factor consisted of 5 items of the motivation questionnaire with factor loadings from 0,422 to 0,626, referring to the strength of the patient's intentions to follow the treatment recommendations. Thus, the initial structure of the original questionnaire, based upon the hierarchical scale of the motivation for psycho-pharmacotherapy levels and reflecting the continual approach to the assessment of motivation was supplemented by an accessory axis – the assessment of the process nature of the motivation for treatment.

At the second stage of the work in view of the establishment of the most prevalent types of the motivation for treatment structure in patients of the psychiatric hospital and of the according compliance profiles there was carried out a cluster analysis with the use of the k-mean method of the data obtained through investigation of 91 patients. There was used a final version of the questionnaire for the assessment of motivation for treatment and the medication compliance scale. In connection with the necessity to record a vast amount of psychometric parameters (20 variables of the motivation questionnaire and 4 compliance subscales) with different gradations there was applied a procedure of the variables' reduction through distinguishing the latent factors by Varimax rotation for the motivation questionnaire and the standartization of the compliance subscales' indices. There were differentiated 3 patient groups, the most comparable as to the profiles of motivation and compliance in each group and simultaneously the most different as to the data obtained for them with the use of the questionnaire for the assessment

of motivation and of the medication compliance scale by the comparison between the groups. The differentiated groups were comparable as to the dimension (29, 33 and 39 patients). They were not significantly different as to both socio-demographical (including average age in groups from 30,7±9,80 to 36,1±1,25 years) and clinical parameters (nosologically, in illness duration from 8,1±7,99 to 8,5±11,05 years, the hospitalization frequency from 24,0±13,41 to 34,3±27,54 months up to the repeated hospitalization).

The study results.

For cluster 3 patient group it is typical the highest sum total motivation index (significant difference with 1 and 2 cluster groups). In the motivation structure they have significantly higher indices of the 1st and 3rd factors of the questionnaire for the assessment of the treatment motivation (Fig. 1).

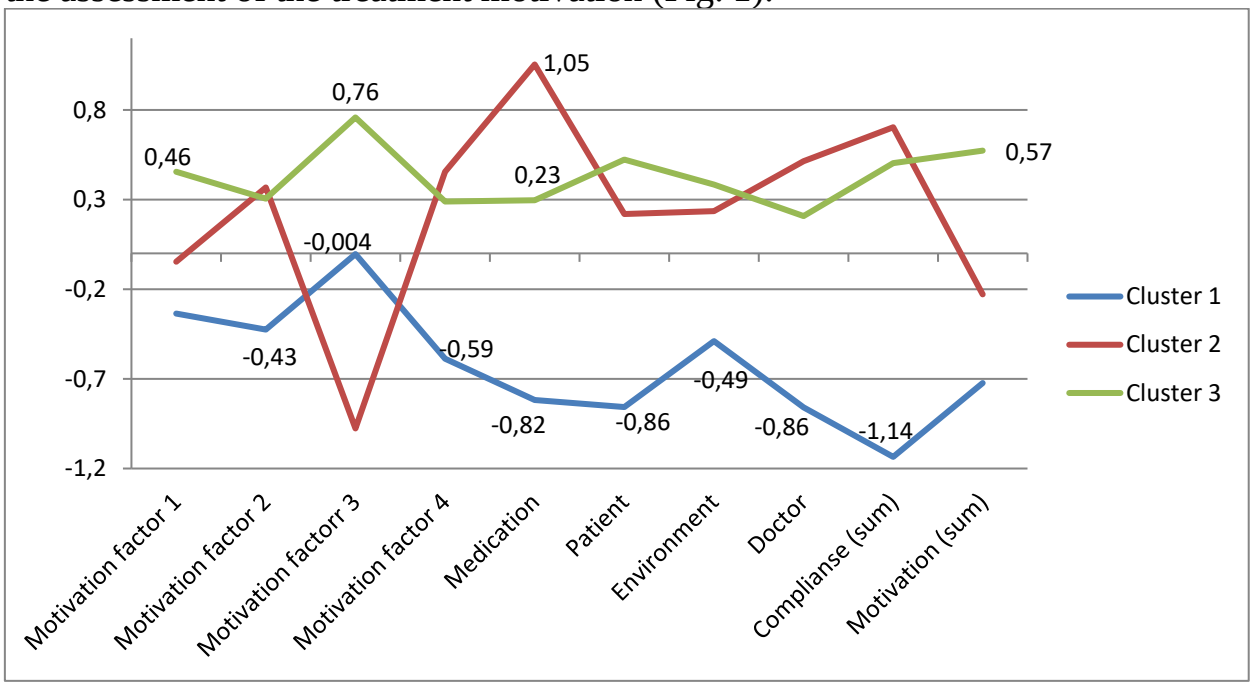

Fig. 1. The typology of patients depending on the preponderant motivation for treatment structure and on the profile of medication compliance (marked standardized indices with significant inter-group differences).

Footnote. The parameters of the questionnaire for the assessment of motivation: factor 1 – the psychoeducative component of the internal disease picture, factor 2 – the insight into the necessity of the treatment, factor 3 – the insight into the psychological mechanism of the morbid social maladjustment, factor 4 – the willingness to an active participation in the treatment process, motiv. sum. – the sum total of the questionnaire. The MCS subscales: medication – the attitude to medication, patient – factors referring to the patient, environment – factors referring to the environment of the patient, doctor – factors referring to the, therapist, compliance – the sum total of the MCS.

Thus, these patients are prone to appreciate the role of the treatment and have insight into the psychological mechanisms of their social maladjustment. Naturally, depending on the indices according to the motivation level for the 3 cluster patients are typical the highest score patterns of the deliberate appeal for the mental health care (Tab. 2).

Table 2. Differences in the structure of motivation for treatment by its levels between groups of patients after clustering, *p<0,05, **p<0,01			
	Mean values of motivation levels ± standard deviation (M ± S.D.)		
Patients' group	Level 1	Level 3	Level 4
Cluster 1	-0,15 ± 0,154	-0,51 ± 0,115	0,17 ± 0,912*
Cluster 2	0,81 ± 0,124*	0,49 ± 0,812**	-0,87 ± 0,919*
Cluster 3	-0,57 ± 0,834	0,05 ± 0,891	0,39 ± 0,505*

They nevertheless demonstrate medium total scores of compliance on account of the medium medication subsystem level (significant difference from the other groups). As compared with less motivated 2 cluster patients, the worsening of the attitude to medication in 3 cluster patients is due to more significantly manifest anamnestic medication compliance deficiencies (MCS item 1.5, Tab. 3).

Table 3. Differences in the prevalence of compliance complications in the anamnesis between groups of patients after clustering				
Predominant behavioral pattern in MCS item 1.5	Frequency of occurrence of a behavioral pattern			Criterion of differences significance, *p*
	Cluster 1	Cluster 2	Cluster 3	
0 points	5	1	2	$x^{2=}$24,074 p=0,002
1 point	14	5	19	
2 points	4	0	2	
3 points	0	4	4	
4 points	3	13	12	

The patients gathered in the 2 cluster belong to a medium indices of motivation questionnaire score, which is due to the extremely low values of the questionnaires' 3 factor (Fig. 1). Such patients tend to ignore the psychological mechanisms of their social maladjustment, simultaneously they have the maximal level of the attitude to medication compliance subsystem and high final level of the sum total compliance. In the motivation structure they have the highest level of amotivation, i.e., they are not willing to passively consent to treatment, in them prevails the motivation founded upon the suffering pressure; at the same time for them it is contrarily typical the lowest level of the deliberate appeal for the mental health care (the 1, 3 and 4 levels of motivation, significant differences from the other groups, Tab. 2). As a result, the moderate motivation intensity and partial insight into the specificity of the necessary treatment do not prevent the development of high level compliance, especially of the positive attitude to medication, which is also reflected in the least manifest deficiencies of the anamnestic compliance as compared with the patients in all other groups (MCS item 1.5, Tab. 3).

For the patients in the 1 cluster group is typical the lowest sum total level of questionnaire for the assessment of motivation, which is mediated by the significantly lower levels in the questionnaire 2 and 4 factors (Fig. 1). The least motivated for treatment patients do not fully apprehend its necessity and thus do not tend to the active participation in the therapy. They nevertheless demonstrate a moderate level of the pattern of the appeal for the mental health care (motivation level 4, significant differences from other groups (Tab. 2). In spite of the absence of total derangement of the motivation for treatment, they tend to the minimal scores of the general compliance structure.

Discussion.

Proceeding from the analysis of the sources of motivation to treatment, the most important factor supporting the adherence to treatment is the subjective suffering of the patients due to a disease. Such patients do not take the position of passive consent to treatment, though they also are not inclined to a deliberate appeal for mental health care. Nevertheless, their adherence to therapy is high, on the account of its most important component – the attitude to medication: the patients show less frequent anamnestic compliance deficiencies. Thus, just the patients "in need of therapy" (cluster 2) tend to seek help, follow the therapist's recommendations independently due to the insight into the psychiatric nature of their ill-being. At the same time, the sum total intensity of the motivation for treatment in this patient group is not the highest one. G.Ammon did stress that borderline and psychotic symptoms present a defence of the deficient identity from the "hole in ego". K.Horney argued that the therapy suggesting the decision of the neurotics' problem may provoke the embarrassment and unwillingness in the patient once more to experience sufferings from which he is defended by neurosis. In both cases it is undermined the patients' faith in his possibility to overcome a symbiotic or neurotic conflict. Probably, a relative lowering of the sum total intensity of the motivation for treatment in patients "in need of recovery" may be due to the fear of failure.

The fuller insight into the psychological mechanisms of the morbid social maladjustment and related to it deliberate appeal for the mental health care open two alternative ways for patients' further behavior in therapy. In the first one given the full insight into the mechanisms of social maladjustment and the developed psychoeducational component of the internal disease picture the willingness of patients to take position of a passive consent to treatment leads to the highest intensity of the motivation for treatment – these are "patients which have assumed the patient role" (cluster 3). However, such "the most" motivated patients demonstrate a significantly less manifest subjective suffering from a disease as compared with those being "in need of recovery". Although both of this patient groups preserve high sum total compliance level, they develop different attitude to medication. The declared passive consent with therapeutic recommendations in patients which "have assumed the patient role" reflects their ambivalent attitude to treatment: a deliberate appeal for mental health care in them is not supported by the adherence to psychopharmacotherapy. It seems that lack of suffering from a

disease determines the prevailing of subjective gains which brings the patient role. Such situation is widely presented in the psychoanalytical literature. G.Ammon in the psychodynamics of depressive patients, while K.Horney in neurotic ones have stressed the specific mechanism of secondary gain from a disease retarding the patient at the initial stages of treatment – the inexhaustible need of acceptance and love in patients, which they begin to obtain in prolonged therapy. K.Horney argues also that it is due to the feeling of disgust in a patient to himself. The defense from such despising attitude to oneself becomes possible through externalization of the contempt by accusation and humiliation of others. Thus disregard of the medication regimen here may be a manifestation of the unconscious attacking the therapist as a means of overcoming by the patient of a negative attitude to himself – the patients' "mirror" transfer: "medication recommended by the therapist makes me to be mentally ill".

The partial insight into the psychological mechanisms of a morbid social maladjustment and a related to it sufficiently voluntary appeal for the mental health care as a second way tells most detrimentally upon the patients' participation in therapy. Here patients have no insight into the necessity of the therapy in spite of the partial insight into the disease mechanisms and of a voluntary appeal to a specialist. They are not willing to actively cooperate with therapist, which in the long run naturally leads to the total dysfunction of all compliance subsystems. G.Ammon in his monograph "Dynamic psychiatry" broadly cites the studies of E.Goffman. The psychiatric in-patients frequently unwittingly become members of some "totalitarian institution" groups, the "convicts" and go through some stages of a "moral career" forming themselves as patients. With the help of a "secondary adjustment" they submit themselves to bureaucratic rules of an institution, though this does not mean that they follow the system rules after being "rewarded with discharge". Thus, the obtained data may reflect the reactions dynamics in the voluntarily hospitalized patients upon the subjectively experienced by them stigma of mental disorder. The group of "stigmatized patients" (cluster 1) differs through the partial insight with insufficient understanding of the therapy role as a background. They do not prone to participate in treatment actively, so cannot receive the whole benefit from the therapy. Apparently the internal picture of the psychiatric disease reinforces the moderate increase in motivation for therapy founded upon the experienced suffering from disease in these "stigmatized" patients.

Conclusions.

The clusterization of the investigated patients sample shows that for the assessment of treatment motivation efficiency it is necessary to take into consideration not only its intensity, but also its structure, where the primary component is a suffering from a disease, subjectively experienced by the patient. Herewith the fuller insight into the psychological mechanisms of a disease undermines the development of stable medication compliance, furthermore the intensive motivation for treatment is not propitious for the development of the most important compliance factor – the attitude to medication.

1. Ammon G. Dinamicheskaja psihiatrija. SPb, 1995.
2. Vid V.D. Psihoterapija shizofrenii. Piter, 3-e izdanie. 2008.
3. N.G. Neznanov, V.D. Wied (Eds.) Essays on Dynamic Psychiatry : A Transcultural Study / Kabanov M.M., Neznanov N.G. Ocherki dinamicheskoj psihiatrii. Transkul'tural'noe issledovanie. SPb.: Institut im. V. M. Behtereva, 2003. - 438 s.
4. Kernberg O. Tjazhelye lichnostnye rasstrojstva: strategii psihoterapii. «Tjazhelye lichnostnye rasstrojstva: Strategii psihoterapii»: Klass; 2005.
5. Korjakov Ja.I. O NEGATIVNOJ TERAPEVTIChESKOJ REAKCII. V sbornike statej «INTEGRACIJa MEDICINY I PSIHOLOGII V XXI VEKE». Izdatel'skij dom OOO "SV-96"; 2007. S. 233-243
6. Kohut H. Analiz samosti: Sistematicheskij podhod k lecheniju narcissicheskih narushenii lichnosti / Per. s angl. -M., "Kogito-Centr", 2003.
7. Horni K. Nashi vnutrennie konflikty. Konstruktivnaja teorija nevroza. Akademicheskij proekt, 2007 g.