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#### **International Congress**

## MULTIDISCIPLINARY ASPECTS OF PERSONALIZED APPROACH TO MENTAL HEALTH PROBLEMS

#### &

#### 5<sup>th</sup> Russian-Croatian Symposium

## USE OF THE BIOSPOSITION OF SPIRITUAL AND SPIRITUAL MODEL IN DIAGNOSTICS AND THERAPY OF MENTAL DISORDERS

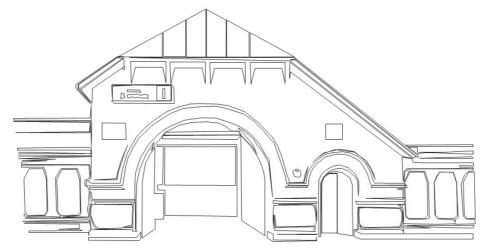
The release of this supplement to Psychiatria Danubina Journal is dedicated to the International scientific and practical congress "Multidisciplinary aspects of personalized approach to mental health problems" held on September 27-28, 2019 in Moscow, Russia.

The list of speakers is presented by leading scientists from Russia, Croatia, Northern Macedonia. The main scientific directions of the Congress are fundamental and clinical trends in modern international research in the field of human mental health. A variety of reports are devoted to the most significant and relevant issues of psychiatry (general, pediatric, forensic), addictology, psychotherapy, sexology, the organization of psychiatric care and suicidology.

A particularly significant section of the Congress is the 5<sup>th</sup> Russian-Croatian Symposium "Use of the biosposition of spiritual and spiritual model in diagnostics and therapy of mental disorders", which, in the course of a six-year tradition, is held in Moscow again. It invariably finds a wide response among Russian psychiatrists, psychotherapists, and clinical psychologists. Earlier, the Croatian-Russian Symposia of Spiritual Psychiatry were held in 2013, 2016 and 2018 in Opatija (Croatia), and the first Russian-Croatian Symposium was held in Moscow Region in 2014.

Abstracts of scientific works published in this appendix were selected by the international scientific committee of the congress from among the publications in the field of psychiatry, addictology, psychotherapy, clinical psychology, submitted by scientists from Russia, Croatia, Northern Macedonia.

Prof. Boris Tsygankov, MD Vice-chairman of the Congress, Academician Member of the Russian Academy of Sciences, Head of the Department of Psychiatry, Narcology and Psychotherapy of the A.I. Yevdokimov Moscow State of Medicine and Dentistry, Head of the Moscow Regional Society of Psychiatrists and Narcologysts



**Guest Editor** Prof. Boris Tsygankov, MD

**Guest Editorial Board** Galina Ivanova, MD Rudolf Ljubičić, MD

## ABSTRACTS

## PREDICTORS FORMATION DISABLING MENTAL DISORDERS IN CHILDREN

#### Zhanna Albitskaya

#### Privolzhsky Research Medical University, Nizhny Novgorod, Russia

**Background:** These official Russian and world health statistics of recent decades indicate persistent and significant trends in the growth of mental disorders in childhood, which leads to a significant increase in child morbidity and significantly limits their ability to live.

In clinical structure increased the percentage of children with disabilities as a result of autism spectrum disorders, mental retardation, organic mental disorders, chronic non-organic psychoses and schizophrenia spectrum disorders. It is generally recognized that the various external and internal factors can have a significant impact on the course, the nature of the clinical and psychopathology, quality of life and social adaptation of children with mental disorders, leading to disability.

However, the hierarchy, the power of influence and the contribution of these factors in the formation of disabling mental disorders in children still remain insufficiently studied.

**Objective:** To identify predictors of forming disabling mental disorders in children by analyzing the reproductive health of the parents, the factors of pregnancy and childbirth, hereditary and organizational factors.

**Subjects and methods:** The study included 2487 children aged from birth to 14 years. study group (n=1886) was formed based on the inclusion / exclusion criteria and verified diagnosis divided by the control group (patients with diagnoses: mental retardation mild (n=327), mental retardation, moderate-severe (n=445) early infantile autism (n=518), organic mental disorder (n=596) and a control group of "healthy children" (n=217), as well as highlight a category of children "child with a disability" (n=1308).

Applied clinical-psychopathological, clinical catamnestic, psychometric methods. Statistical analysis was performed using the program (R-Core Team (2017): A language and environment for statistical computing. Foundation for Statistical Computing, Vienna, Austria). The critical level of significance was p taken equal to 0.001. Differences between treatment groups were considered highly statistically significant at p<0.001. Analiz indicators produced using Fisher's exact test. The correction for multiple comparisons was performed using the method "false discovery rate (FDR)" Y. Benjamini and Y. Hochberg (1995).

To determine the contribution of the main factors influencing the effective feature (disabled), the method of "factorial analysis of variance".

**Result:** In order to assess the strength of the influence and contribution to disability in children was conducted factorial analysis of variance between groups, "children with disabilities" and "non-disabled children" in patients with mild mental retardation, organic mental disorders, and early infantile autism.

In the group of children with moderate mental retardation and severe statistical analysis was not performed, since 100% of patients (445 children) were recognized as disabled child because of characteristic clinical features and a low level of social functioning.

The data obtained revealed the effect of the number of predictors disabling mental disorders. 4 main groups were formed for analysis: hereditary predictors (mental retardation, alcoholism, drug addiction, schizophrenia, BAR, depressive disorder, OCD, GAD, epilepsy parents); reproductive health of parents (mother's age less than 18 years and more than 36 years, the age of both parents are over 40 years old; his father older than 45 years of recurrent miscarriage, infertility is more than 5 years, the use of reproductive technologies, factors of pregnancy and childbirth (extragenital pathology mother complications pregnancy, labor and delivery complications; organizational Violations pregravid prevention, late diagnosis, wrong drug therapy, late onset of psychological treatment for use in the practice of medicine determined by the total input power of influence and generalized predictors on disability in childhood by the dispersion factor analysis.

In the group of patients with early childhood autism found that the strength of "organizational factors" deposit (late diagnosis and correction) is 55.2%, which is 2 times the power of influence of the factor "reproductive health Parents" (22.82%) and 5 time factors of pregnancy and childbirth (10.91%), which corresponds to a high statistical significance (p<0.001). The contribution of genetic predictors (mental disorders of parents) (1.42%) was not statistically significant difference (p>0.05). It is an important predictor of the age of the parents (mothers older than 36 years old, his father more than 45 years) and the factor of "the use of reproductive technology" (contribution to the disability - 19.9% (p<0.001).

In the group of organic mental disorders, the maximum power of influence and contribution to the registered disability among the factors of pregnancy and childbirth (birth injuries, surgical childbirth, 38.8%, chronic fetal hypoxia-31.5%, fruit postmaturity - 22.5% (p<0.001). The next most important predictor is the parental reproductive health (maternal age over 36 years (p<0.01), infertility is more than 5 years» (p<0.05) and recurrent miscarriage (p<0.05). The power of influence "factor pregnancy and childbirth" on disability is the leading (41.2%), 3 times higher than the power of influence of factors "reproductive health parents" (19.4%) and "institutional" (11.3%) (p<0.001).

In the group of patients with mild mental retardation maximum statistical value recorded among indicators such as "violations during pregravid prevention" (52.4% - p<0.001) "alcoholism and mental retardation parents" (58.9% - p<0.001), late onset of drug therapy and psychological correction (without comorbid pathology and behavior disorders (47.2%). In the analysis of predictors of "reproductive health of parents" only significant factor (p<0.001) is a factor of "miscarriage" (abortions, stillbirths (55.9%). The factor of "the age of the parents" had no significant statistically significant differences (p>0.05).

**Conclusion:** Thus, the results of the study showed that predictors of disabling mental disorders in childhood are: patients with early infantile autism - "late diagnosis" (contribution factor of 55%) in patients with organic mental disorders - factors of pregnancy and childbirth (the contribution factor of 41%); in patients with mild mental retardation - the factor of "hereditary mental pathology in the parents" (contribution of 34%).

\* \* \* \* \*

## ADDICTIVE BEHAVIOR OF MINORS AS A RISK FACTOR OF SUICIDE

#### Natalia Aleksandrova & Elena Shkityr

#### V. Serbsky National Medical Research Center for Psychiatry and Narcology, Moscow, Russia

Introduction: The last few years' suicidal behavior in adolescence was one of the most talked about issues in the community. Addictive behavior and suicidal activity closely related to ontogenesis of the minor and his functioning in the relevant social groups. It should be noted that in conditions of traumatic situations addictive behavior creates false, but relatively stable, perception removal stress voltage and thus, the illusion of solving the problem that in reality leads to withdrawal from reality, loss of normal interpersonal relationships or their transformation and replacement usual circle of friends into groups antisocial orientation, including suicidal character. In this addictive behavior begins to dominate in all spheres of life of the minor, leading to a gradual maladjustment, which increases, including the risk of committing suicide. Thus, suicidal activity is most evident in the use of various psychoactive substances which intoxicated amplify manifestation of psychological stress, autoaggression and available various psychopathological disorders resulting tapers ability to use minor alternative ways out of the difficult situation, whereby to perform various actions suicidal nature often ending in death.

The aim of this study is to determine the degree of activity of suicidal risk in minors with addictive behavior.

**Subjects and methods:** We have 72 cases of addictive behavior among minors who committed suicide. Were analyzed as part of comprehensive postmortem forensic psychological and psychiatric examinations conducted in The Serbsky National Medical Research Centre of Psychiatry and Addiction in the period from 2017 to 2018. Age minors at the time of the suicide of 11 - 17 years (mean age 14 years). The ratio of male and female suicide differed insignificantly - 1.2:1. Used method of research - a retrospective analysis of clinical and psychopathological.

**Results:** Among the most common types of addictive behavior of juveniles, who have a direct influence on the activity of suicide are mental and behavioral disorders due to use of psychoactive substances in our study. Thus, most often were detected adverse (harmful consequences) alcohol - 36(50%), the use of several psychoactive substances (alcohol, synthetic cannabinoids, amphetamine etc) - 12(16.7%). It should be noted that the above addiction in many cases (27(37.5%)) had comorbid psychopathology, namely emerging personality disorders - 15(20.8%), organic personality disorder - 9(12.5%), frustration adaptive responses - 4(5.5%), and also with conduct disorder socialized - 2(2.8%) as a group delinquency. Substance abuse, causing no dependence (relaxants, analgesics, antispasmodics, some antidepressants etc.) occurred in 13(18.1%), which frequently was associated with eating disorders in girls (anorexia or bulimia) - 8(11.1%). Thus eating disorders over time compounded accession affective symptoms and disorders adaptive responses - 5(6.9%). "Subjective" disorders in the sexual area (do not fit the criteria of ICD-10, but the impact on the life of minors in general), who noted teenagers in life, referring himself to

the various categories of LGBT (gay, lesbian, asexual, panseksualy) met mainly girls in 16 (22.2%) cases and only in 2 (2.8%) boys. Video game addiction was observed in 8 (11.1%) cases, and only in males. Furthermore, it should be noted that several adolescents - 7 (9.7%) have already been mentioned attachment disorders in childhood, resulting disadvantage, and in some cases even emotional deprivation in incomplete families (mother or grandmather), and in families with non-biological parent (usually a stepfather), especially in those cases when a second child is completely shifted the entire vector of attention (as a favorite and share the child). We have seen that the family adolescents in the study were 68 (94.4%) disturbed parent-child relationship, regardless of family structure (complete, incomplete, guardianship). Pathological parenting style, especially on the part of the mother, distorted psychophysiological development of the child, which in turn leads to further not only the appearance of psychosomatic disorders, but also easier assimilation of the various forms of addictive behavior. Among the most common forms of self-aggression (in addition to completed suicides) among minors had different skin self-harm: self-cutting arms, thighs, abdomen (including deep, caused in large vessels) - 17 (23.6%); piercing tattoo in 11 (15.3%), burns - 2 (2.8%). Manifestations of risk behavior in the form of roofing, visits an abandoned elevated degree of danger buildings was noted in 22 (30.6%). Committing fatal suicidal acts is the state of intoxication, but in the presence of external acute traumatic situation was observed in 21 (29.2%). 30 (41.7%) persons have committed suicide, after entering himself into a state of intoxication in order to facilitate the implementation of suicidal intentions. 7 (9.7%) have committed suicide intoxicated (drug or alcohol) in combination with drugs (phenobarbital, fluoxetine, No-spa). It should be noted that young people from a specified group of suicide victims have repeatedly expressed during the life of suicidal thoughts, but the suicide in this group was due not so much a suicidal intent, but as a result of reduced motor-vestibular control as a result of intoxication with psychoactive substances. In 14 (19.4%) of minors (on the testimony of other witnesses and relatives) while taking psychoactive substances (mainly alcohol) noted the deterioration of the mental state of a depressive component (think about death, we talked about his worthlessness, that "better and not to live at all") and the implementation of this background suicidal activity.

**Conclusion:** An increased incidence of conjugated addictive and suicidal behavior among minors necessitates further more in-depth study of these problems for the subsequent development of effective prevention strategies

\* \* \* \* \*

## CHARACTERISTIC FEATURES OF SEXUAL IDENTITY IN MEN AND WOMEN WITH GENDER DYSPHORIA IN SCHIZOTYPAL DISORDER

## Galina Alekseeva<sup>1</sup>, Elena Pervichko<sup>2</sup> & Nikolay Kibrik<sup>1</sup>

<sup>1</sup>V. Serbsky Federal Medical Research Centre of Psychiatry and Narcology, Moscow, Russia <sup>2</sup>Lomonosov Moscow State University, Faculty of Psychology, Moscow, Russia

Currently, there is an increased influx of patients with confused sexual identity (mainly adolescents and young adults) who intent to change their biological sex. The emergence of such disorders in adolescence and young adulthood inevitably leads to aggravation of the age-related crisis, and distortion of normal psychosexual development. These developmental peculiarities can, in turn, lead to rejection of the biological sex by the potentially reproductive part of the population. The practical relevance of this study is determined by the need for creating diagnostic programs that aim to identify persons with sexual identity disorders, and establish the nature of these disorders; as well as by the need to develop a technology of psychological assistance to patients with gender dysphoria.

Persons with gender dysphoria are characterized by a dissonance between their bodily experiences and the biological sex. They experience uncertainty concerning their gender identity, a desire to belong to the opposite sex, or a belief that they do indeed belong to it.

The concept of "gender identity" is widely used in describing characteristics of the psychosexual sphere: gender identity, the degree and nature of the gender role interiorization, gender-related behavior, personal self-conception. Gender self-awareness refers to the ability of identifying oneself as a representative of a certain sex, as well as regulating one's behavior in accordance with the moral and ethical requirements and attitudes adopted in society. However, the concept is not sufficiently developed, which also contributes to the relevance of this study. The study of gender identity in the three following aspects appears to be the most relevant: the cognitive aspect (the study of gender identity, ideas about gender roles, "self-images"), the semantic aspect (the study of the sense-making motives and implementation of behavior) and the emotional aspect (the study of the personal self-conception).

This study aims to identify the gender characteristics of sexual identity in young people with gender dysphoria in schizotypal disorder.

The data for this study was obtained from the patients who sought assistance in the department of sexology and therapy of sexual dysfunction of the Moscow Research Institute of Psychiatry in 2017-2019: 18 women and 15 men aged 16 to 24 years.

The anamnestic, clinical, psychological and sexological methods were used. The clinical-psychological research included the clinical-and-psychological interview, the standard pathopsychological examination, supplemented with a self-esteem test by Dembo-Rubinstein with auxiliary scales, the K. Machover "human figure" method (1984), as well as the following tests: "Coding", "The Myth" (masculinity and femininity modified by N. V. Dvoryanchikova (1998), "CTR" (color test of relationships).

When comparing the male and female patient groups - young people with gender dysphoria in schizotypal disorder - some significant differences were found in the characteristics of sexual identity, alongside the general similarities.

In the group of women with sexual dysphoria in schizotypic disorder the following characteristics were revealed: nondifferentiated gender identity (90%), lack of emotional identification with the images of either men or women, an expressed cognitive differentiation of gender role representations (75%), and masculinity of gender-role behavior (70%) in the absence of emotional and semantic interiorization of the male sexual role (hyperrole). This group is also characterized by a negative attitude to self (90%), which causes a major discrepancy between the images of "the real me" and "the ideal me". In the 80% of the cases the participants displayed a "rejection" of their own physicality (the rejection of secondary sexual characteristics was more pronounced in this group, than in the male group). It was often combined with a depressive tendency in the overall emotional state, delusional ideas of dysmorphic nature and sensitive ideas of reference. Sexual partnership is characterized by poor gender differentiation, low sexual activity and neutral emotional coloring (70%).

In the group of men with gender dysphoria in schizotypal disorder we revealed the following characteristics: femininity of gender identity and gender-role behavior (93%), hyperfemininity in relation to women; lack of cognitive, emotional or semantic interiorization of gender roles (87%), lack of emotional identification with the images of either men or women (73%), and homosexual tendencies at the cognitive level. The negative attitude to oneself prevails (60%), however, the images of "the real me" and "the ideal me" are rather coordinated. The "rejection" of one's physicality is less pronounced (67%) than in the female group. Nondifferentiation in sexual preference is also characteristic of this group. The attitude to sexual relations is ambivalent (more often so than in the female group), the sexual activity (bisexual) and adaptation are low (80%).

The internal disharmony and contrierty of sexual identity in both groups are caused by a complex disharmony of puberty, the "rejection" of their physicality, lack of emotional identification with either the image of man or the image of woman, a negative attitude to self, homosexual orientation of desire at the cognitive level, lack of emotional, semantic, or (in the group of men) cognitive interiorization of gender roles. Low sexual activity (especially in the male group) and neutral attitude to sex in most cases lead to devaluation and refusal of sexual contacts.

The difficulties of identification with a certain gender in the group of patients with sexual dysphoria in schizotypal disorder are apparently associated with disturbances in the emotional and cognitive spheres, as well as the regulation processes, which forms multifaceted clinical and psychological syndromes. However, testing this hypothesis requires further research.

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## THE FEATURES OF PRE-MANIFEST STATES IN PATIENTS WITH ACUTE SHORT-TERM PSYCHOTIC DISORDERS

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**Background:** The diagnostic category of acute and transient psychotic disorders (ATPD, F23, the International Classification of Mental and Behavioural Disorders, the 10<sup>th</sup> revision, 1994) is represented by different nosological forms and includes both schizophrenia spectrum disorders and psychoses of other etiologies (affective and reactive). Non-psychotic disorders and brief subclinical psychotic episodes often precede the manifestation of schizophrenia and are overlooked by psychiatrists. Recognition of these states in time is necessary for early diagnosis of schizophrenia.

The aim of the study was to study the features of pre-manifest states in acute short-term psychotic disorders.

**Subjects and methods:** 91 psychiatric inpatients (65 males, 26 females; the mean age:  $25.9\pm9.3$ ) with psychotic states corresponding to the ICD-10 Acute and transient psychotic disorder (ATPD, F23) diagnostic criteria and suffering with psychopathological disturbances preceding the psychosis development were examined. The sample was divided into two groups: the 1<sup>st</sup> group included 36 patients (the mean age:  $30.9\pm9.9$ ) with ATPD without symptoms of schizophrenia (F23.0); the 2<sup>nd</sup> group was represented by 55 patients (the mean age:  $22.6\pm7.2$ ) with ATPD with symptoms of schizophrenia (F23.1). Clinical and psychopathological as well as statistical methods were applied.

**Results:** The following types of psychopathological and behavioral disorders in patients with ATPD were identified: 1) psychoactive substance abuse (misuse of alcohol and cannabinoids); 2) psychogenic disorders (anxiety disorders, somatoform disorders, post-traumatic stress disorder, reactive depression); 3) psychopathic-like behavioral disorders (antisocial behavior, stereotypical protest reactions, impulse-control disorders such as dromomania, pathological gambling, sadistic tendencies); 4) autochthonous affective fluctuations (episodes of hypomania, subdepressions, cyclothymia-like mood swings, depressive episodes); 5) subsyndromal and brief subclinical psychotic symptoms (fragmentary delusional ideas, perceptualion deceptions, episodes of associative automatism such as influx of thoughts and thought blocking). The prevalence of these disorders in patients of both groups is presented in Table 1.

Pre-manifest disturbances	The 1 <sup>st</sup> group (F23.0) n=36	The 2 <sup>nd</sup> group (F23.1) n=55	p-meaning
Psychoactive substance abuse	11 (30.5%)	12 (21.8%)	p=0.3529
Psychogenic disorders	27 (75.0%)	19 (34.5%)	p=0.0002 (p<0.001)
Psychopathic-like behavioral disorders	3 (8.3%)	12 (21.8%)	p=0.0912
Affective disorders	4 (11.1%)	19 (34.5%)	p=0.0125 (p<0.05)
Subclinical psychotic symptoms	2 (5.5%)	19 (34.5%)	p=0.0014 (p<0.05)

Table 1	Pre-manifest	states in	patients	with <b>ATPD</b>
Tuble 1.	ine mannese	states m	patients	

Psychogenic disorders were observed in 75.0% of patients of the 1st group and in more than half of these cases represented by reactive depressions (51.8%), including a suicidal attempt case. Phobias (14.8%) were observed less frequently. In the  $2^{nd}$  group, psychogenic disorders occurred in 34.5% of patients. Reactive depression was identified only in 31.6% of cases, phobic symptoms were observed more often (57.9%), mainly revealing in the form of children's fears. Intergroup differences in the incidence of phobias were statistically significant (p=0.0024).

Affective disorders were observed in 4 patients of the 1<sup>st</sup> group and represented by autochthonous mood fluctuations (short-term episodes of subdepression and hypomania), including a depressive episode case. In the 2<sup>nd</sup> group, pre-manifest affective disorders were observed in 19 individuals and characterized by greater frequency of depressive episodes often accompanied by suicidal tendencies and auto-aggression (31.6%).

Subclinical psychotic symptoms were observed in 2 patients of the 1<sup>st</sup> group and represented by shortterm unstable unsystematic delusional ideas (including a case of an idea of jealousy and of an idea of persecution respectively). In the 2<sup>nd</sup> group, subsyndromal psychotic symptoms were observed in 19 patients. They differed with a greater variety and included subclinical associative automatisms, auditory deception of perception such as hallucinatory calls, episodic verbal pseudo-hallucinations, less frequent visual hallucinations, transient paranoid states according to the reduced variant of acute sensory delusion as well as ideas of relation and groundless suspicion. Besides, there was a case of subsyndromal catatonic symptomatology with the background of short fragmentary delusional ideas.

**Conclusions:** Pre-manifest autochthonous affective disorders and subclinical psychotic symptoms were significantly more often observed in the group of patients with ATPD with symptoms of schizophrenia than in patients with ATPD without symptoms of schizophrenia (p<0.05), while psychogenic disorders were more common in subjects with ATPD without symptoms of schizophrenia (p<0.001). The psychopathological structure of pre-manifest disturbances in these groups was different. It can be assumed that the features of pre-manifest symptomatology in patients with ATPD without symptoms of schizophrenia represent the presence of reactive lability, an increased vulnerability to psychogenic influences, and in cases of ATPD with symptoms of schizophrenia they reflect endogenous predisposition to mental disorders.

## SOMATOGENIC DEPRESSION IN CHILDREN WITH THE SYMPTOMS SIMILAR TO AUTISM

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**Background:** The problem of somatogenic depressive disorders and autism spectrum disorders is currently a significant problem among the children due to the high maladaptive effects and a marked increase in these disorders in the pediatric population. At the same time, almost no attention is paid to the issues of comorbidity of these disorders. Although the symptoms similar to autism are noted in the structure of psychogenic depressions, endogenous depressions, and depressions caused by organic brain diseases, L. Kanner (1943) mentioned affective disorders as the cause of early childhood autism.

**Objectives:** The present study determines the role of somatogenic depression in the genesis of the symptoms similar to autism and establishes the criteria for the differential diagnosis of these disorders.

Subjects and methods: The study included a group of 59 children with somatic disorders. Previously they were diagnosed with autism spectrum disorders (ASD), and after re-examination, the somatogenic depression was diagnosed. The patients' age was between 2 and 10 years of age (the average was  $6.7\pm0.6$  years). The ratio of boys to girls was 1.5:1. The average age of occurrence of affective disorders was  $3.1\pm0.7$  years, the average duration of affective disorders was  $3.7\pm0.6$  years. Clinical-psychopathological, anamnestic, paraclinical, and statistical methods were used in the work.

**Results:** The study examined the high burden of risk factors using anamnestic method. Family history and constitutional factors were 2.2 per patient. To a greater extent, it was the characterological features of the patients (72.9%), the personal characteristics of the mothers (62.7%), anxiety-suspicious, affectively excitable and epileptoid, psychosomatic disorders in close relatives (40.7%), and the personality characteristics of the fathers (27.1%). The latter factors were affectively excitable and epileptoid features.

Neurocognitive disorders as risk factors were represented to a greater degree, on average, at the level of 4.3 per patient. They included the following: mostly residual organic failure of the central nervous system in all (100%) patients, pregnancy pathology (72.9%), feeding disorders (62.7%), and pathology of births (39%) and of newborns (39%).

The psychosocial risk factors for depressive and autistic disorders were 3.9 per patient with a more frequent pathological type of family education (64.4%), impaired mother-child system (64.4%), presence of siblings (54.2%), and visiting children institutions (23.7%).

The total number of risk factors for impaired mental ontogenesis was on average 10.9 per patient. Most of them were biological (6.5 per patient) rather than psychosocial (3.9 per patient).

The mental status of the overwhelming majority (86.4%) of the patients was determined by slightly emphasized depression with a slight negative affect. It was manifested in the form of sad facial expressions, dissatisfaction, irritability, sensitivity, tearfulness, demandingness, readiness to conflict, and aggressiveness. Parents did not realize that their children were in a bad mood. The depressive symptoms increased with appearance of negative stressful life events. Others symptoms included the silence, lack of facial expression, not responsiveness to one's attempts to gain attention, demonstration of aversion of others, rejection of social communication with children and adults, and repetitive behaviors. These symptoms joined to the clinical picture. Less commonly, these autistic symptoms were noted after the time being in a nursery or at school. They were accompanied by the general fatigue and limited verbal expression of feelings. The symptoms similar to autism were more noticeable in cases of moderate depression in 13.6% of patients. It was characterized by a more noticeable mimic, by behavioral manifestation, and by awareness of depressive mood as melancholy by both patients themselves and by their parents. At the same time, depressive symptoms were complemented by an immediate reduction of amount of communication, by rejection in participation in games and any kind of activities, by avoidance of eye contact, by increased sensitivity to loud sounds, by repetitive movements and words when engaged in a conversation. Clinical variants of somatogenic depression were more often relatively simple: asthenic depression was diagnosed in 74.6% of patients, anxious depression in 8.5% of patients. More complex options: asthenic with anxious depression was diagnosed in 15.3% of patients and anxiously melancholy in 1.7% of patients.

Majority of patients suffered from increased severity of cerebrastenia (fatigue, exhaustion, irritability, inattention, headaches), depressive symptoms (uncertainty, discontent, disobedience, conflict), and autistic symptoms (refusing contact with others, repetitive behaviors, obsession, striving for consistency) in afternoons. The symptoms softened after a day's rest or a good night's sleep.

Characterological features in 20.3% of patients were presented in the form of emotional and labile traits, in 18.6% of patients in the form of hysterical traits, in 16.9% of patients in the form of labile-hysterical traits. All those traits contributed to inadequate responses towards the surroundings. They were complemented by the deterioration of mood, restriction of communication, and often demonstrative rejection and ignoration of others. Epileptoid traits were observed less frequently (5.1%). That fact determines perseverance and the desire to subjugate others, sometimes through refusal to communicate. Labile-affective (5.1%), sensitive (3.4%), anxious and closed (1.7%), labile-unstable (1.7%) character traits, along with inadequate anxiety, obsessions, and stereotypes led towards the limitation of communication. Those traits formed on the basis of a sanguine temperament in 58.1% of cases, choleric temperament in 23.3%, and phlegmatic temperament in 16.3%.

Differentiated pathogenetic therapy of somatogenic depression contributed, along with the elimination of affective disorders, towards the reduction of the symptoms similar to autism in majority of children.

**Conclusion:** The symptoms similar to autism were observed among the children with somatogenic depression. Those symptoms were manifestations of the depressive effect itself. This is evidenced by the emergence of mental pathology after the age of three and the transient nature of these disorders. Those disorders include interruptions in communication, refusal of eye contact, stereotypes, the desire for consistency, and the disappearance of these disorders simultaneously with the improvement of one's mood. Pathogenetic therapy of depressive-autistic disorders should be conducted with cerebral organic genesis and the clinical features of affective pathology.

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## BEHAVIOR THERAPY TO PATIENTS WITH VASCULAR DEMENTIA

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**Background:** Dementia is acquired intellectual deterioration caused by unspecific organic causes. Deterioration covers intellectual decline of memory, language, speech, reasoning, cognitive and visual-spatial and motor skills.

**Aims:** To recognize early symptoms of the disease in the earliest stage of the family with the help of cognitive behavior therapy to facilitate the coming years and the patient and family.

#### Subjects and methods:

- observation patients;
- psichological test;
- cognitive behavior therapy;
- family therapy;
- training of social skills;
- psychoeducation- acceptance of treatment.

**Objectives:** To improve a new way of dealing with the symptoms to reduce the negative consequences of deluzion thoughts and fears associated with hallucinations.

This we do using neuroleptic therapy, which in these cases is necessary for the patient to lose his fears so in a more relaxed state without hallucinations deluzions visit and cognitive behavioral psychotherapy.

Here many of the families assisted interventions aimed intervension the level of expressed emotion or natures more focused on increasing strategies.

**Result:** Following 600 patientes from 2006 to 2018 years with Alzheimer dementia were 80 patientes from whom 30 men and 50 women. From those patients 3 of them were with early dementia before 50 years 3 women and 1 man.

Vascular dementia is an incurable chronic disease, but assistance to caregivers can reduce the severity of patients' symptoms and delay institutionalisation. Because this assistance requires provision of multiple health care and social services, patients and caregivers might benefit from a coordinated system of care. The quality of care for patients with vascular dementia and their caregivers can be improved with a model of care in which services provided by the health system and communityagencies are coordinated by a care patients with health insurance.

## EVALUATION OF THE RISK OF CARDIOVASCULAR DISEASES BY PSYCHOPHYSIOLOGICAL AND PSYCHOMETRIC METHODS

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The use of a functional metabolic adaptation monitor is to assess the risk of cardiovascular diseases and quality of life of patients. Cardiovascular diseases remain the most pressing health problem for most countries of the modern world, including Russia.

Evaluation of quality of life (based on questionnaire SF 36) is wide-spread and can also help to choose effective treatment strategies for patients with cardiovascular diseases (CVD).

The problem of high mortality is directly related to late diagnosis, therefore, special attention in modern scientific research is paid to identifying predictors of cardiovascular diseases and improving methods of early diagnosis, including psychophysiological and psychometric methods because it includes psychosomatic disorders.

The integral myocardial index (IMI) is one of the indicators for assessing the state of the cardiovascular system, according to the functional metabolic adaptation monitor (FMAM), which was determined by the Cardiovisor technique.

The FMAM consists of a PC and software with four modes:

- 1. "Cardiovisor" to assess microalterations in ECG data;
- 2. The assessment of heart rate variations;
- 3. The assessment of impulse speeds;
- 4. The assessment of intracellular and extracellular fluid balance.

The monitor uses four electrodes to take ECG data over ten minutes, both in a horizontal and sitting position, that is then processed by the software to give results from all four modes. This allows for the psychometric evaluation of the psychophysiological state of the patient in real time.

The study was a prospective observational controlled study.

There were 145 patients in the study who were divided into three groups: the observation group, which included 30 patients with cardiovascular diseases up to 65 years (observation group 1) and 34 patients with cardiovascular diseases after 65 years (observation group 2), the comparison group consisted of 29 people without initially diagnosed cardiovascular diseases up to 65 years (comparison group 1), 23 patients without cardiovascular diseases after 65 years (comparison group 2), the third, control group, which consisted of 29 healthy people the age of 45 years.

IMI in the observation group 1 was 18 (17; 19) %, the observation group 2 was 24 (17, 32) %, the comparison group 1 was 16 (15, 17) %, the comparison group 2 was 17 (16, 17) %, the control group - 14 (14; 15) %. The quality of life of patients from both observation groups is low for integral indicators, such as "physical and mental components of health", "social functioning" (according SF 36).

The physical component of health in observation group 2 patients is 49.81%, and in observation group 1 patients - 38.24% ( $p \le 0.05$ ). A significant difference in the mental health component is observed: in the second group - 38.9%, and in the first group - 31.10% ( $p \le 0.05$ ).

Patients with CVD suffer usually from neurotic disorders: depression, memory impairment, attention disorders are more common, therefore the mental health component of the quality of life of patients with CVD decreases suffers.

The index of IMI allowed us to reveal significant differences in the values of this indicator both in patients within the observation group and in comparative evaluation with similar age groups of patients without cardiovascular pathology and patients in the control group. The highest level of IMI was observed in patients of the observation group 1 - 18% and observation group 2 - on average 24% with significant differences (p<0.05) in relation to the indicators of patients in the comparison group (p<0.05) and control (p<0.05).

The threshold value according to the ROC-curve of IMI was 17.5%, confidence interval was 0.786-0.912, the specificity was 92.6%, and the sensitivity was 62.5%.

In patients with CVD, IMI was 40% higher. The IMI should be attributed to the early predictors of cardiovascular diseases and with an increase in the rate of IMI by more than 30%, the patient should be included in the risk group with a recommendation from a cardiologist for more targeted examination. Patients with CVD and patients with risk of developing CVD need to develop a multidisciplinary program to manage patient data involving endocrinologists, neurologists and psychotherapists, because such patients are often emotionally labile, which reduces their quality of life and worsens the prognosis of the underlying disease.

## PSYCHOLOGICAL AND LINGUISTIC ANALYSIS IN THE DIFFERENT SPEECH MATERIALS OF MINORS, VICTIMS OF SEXUAL VIOLENCE

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**Background:** In Russia's legal procedures of the late 20<sup>th</sup> - early 21<sup>st</sup> centuries, cases of sexual crimes, victims of which are minors, are increasingly becoming a common occurrence. Accusations of this kind are seldom based on direct evidence of witnesses, more often than not, they are based on evidence of the victims themselves or/and their relatives. These accusations, as a rule, are verbal and serve as the only proof of the charge. This factor has led to the development of a trend in psychological and linguistic expert science that studies, analyzes and interprets the verbal and non-verbal behavior of underage victims. One of the main problems is the elaboration and verification of the methodology of the study, the aim of which is analysis of various verbal material: the communicative and speech ability of the victims, their verbal and non-verbal behavior in a concrete communicative situation, or a recorded text of any kind.

The aim of study: Elaboration of principles and sequence of complex psychological and linguistic analysis of verbal evidence of underage victims.

**Subjects and methods:** This study is a summary of the practical participation of specialists in 15 cases of sexual crimes against minors (cl. 131, 132, 135 of the Criminal Code of the Russian Federation) in five regions of Russia (Sverdlovsk and Chelyabinsk regions, Perm region, Yamal National Autonomic Region and Khanty-Mansiysk Autonomic Region). The victims were 11 girls and 4 boys, from 5 to 17.5 years of age. The following methods were used to analyze the verbal evidence of the minors: observation, semi-structured interview, discourse analysis of speech, analysis of logical, semantic, emotional and evaluative structure of the text, component analysis of the lexical meaning of the word and the semantic structure of the verbal utterance.

**Results:** In the process of making their conclusions, specialists or experts discovered that legal and investigating organs and lawyers were offered both direct and indirect verbal materials for analysis, each of which has its own specifics. The direct (primary) materials include printed, hand-written, video and audio sources which contain, with varied degrees of completeness, the text to be analyzed or parts of it (utterance, word) - all of which is the product of a certain author. The indirect (secondary) materials include evidence of witnesses, interrogation material of the suspects (the accused) and the victims, protocols of court proceedings that inform about the arguable points in the text (utterance, word), and where and how it was all written.

Study of these materials made by specialists within the framework of inquiries and criminal charges brought to light the peculiarities that cause problems concerning the authenticity of analysis and interpretation of what underage victims had said: firstly, the way the evidence of the minor was registered - in the form of a written text, more often than not with the help of an adult (parents, relatives, or an official: police investigator, psychologist, etc.). Secondly, the way the spoken material was put down on paper and the time it was done: in one text or in several; in texts written only by the victim or by the victim with his/her relatives; in texts written right after the incident or sometime later.

The first factor poses the problem of whether or not psychological and linguistic characteristics of the words registered as evidence of the victim correspond to his/her age and to his/her individual and psychological characteristics. As a rule, the words said by a child that are put down in interrogation protocols by adult officials and signed by them, do not correspond to the child's age, nor to the level of the child's verbal development, nor to the child's individual and psychological peculiarities because the police investigator writes it all down as it is professionally accepted with required juridical correctness and exactness of formulation, but the way it is written down on paper does not correspond to the child's or adolescent's level of development.

The second factor actualizes, on the one hand, the problem or how well the victim is prepared or how well he/she has learned the text or the degree of its spontaneity, on the other hand, there is the problem to what extent the contents of the evidence correspond to what actually happened.

Analysis of verbal materials within the framework of the legal cases, in which the specialists had taken part, showed that usually more than one text or audio (video) recording is given for analysis. As a rule, it is several narrations, registered or taped within time intervals of several days, weeks or months. Their contents and speech characteristics, more often than not, contradicted the age specificities of functioning and level of development of the cognitive functions of the child: perception, memory, thinking process. Thus, the earlier texts of the minor often contained considerably less details of the traumatic event than the later ones, created after repeated retellings to different people: relatives, friends, police investigators - people who asked numerous exacting questions about the details of what happened, when and how. This problem was clearly seen when the episodes and their compositions were compared in the texts of the victim belonging to different periods of time, when analysis of the degree and character of their structuring and concretization was made.

Numerous repetitions of past events made the child memorize them and, as a rule, this blurred the boundary between the real events and their interpretation in the mind of the underage victim that took place in the child's mind during the discussion. Studies of psychology of the mind convincingly prove that children aged from 5 to 10 are inclined to interpret events the way the adult who is important for them sees it.

Analysis of the presented speech material also stressed the significance of the methods of determining spontaneity or preparedness of the evidence given by the child, how well it was memorized by him, especially in dialogues with the police investigator. Observation has shown that to solve this problem it is necessary to take into account such psychological, psycho-physiological and linguistic peculiarities of spontaneous speech as the active use of components of non-verbal communication (mimics and gests); absence of space uniformity in speech, as well as contradictions in speech; brevity of expression, the presence of parts of sentences and unfinished sentences, breaks in utterances and inconsistency of speech from the logical point of view, the emotional factor and assessment, inattention to way of expressing thoughts, etc.

On the whole, analysis of speech material showed the necessity of three stages: pre-text, text and post-text analysis. The pre-text stage is to consist of preliminary viewing of video recordings, division of the video recording into fragments and work with them; the text stage presupposes the viewing and listening to audio and video tapes, the making of shorthand scripts of the verbal behavior by way of discourse transcription; the post-text stage consists of verbal and non-verbal means and selection of utterances that can help answer the questions standing before the specialist.

**Conclusions:** Expertise of speech material in cases connected with sexual crimes against minors require the obligatory presence of specialists or linguistic experts that are acquainted with methods of linguistic, psycho-linguistic, onto-linguistic and psychological analysis of speech of underage victims.

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## THE RISK FACTORS DISRUPTING PSYCHOLOGICAL ADAPTATION IN PATIENTS ON PROLONGED DIALYSIS TREATMENT

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**Background:** Chronic kidney disease (CKD) is always associated with psychological effects on the personality of the dialysis patients. As any other chronic ailment, CKD is an unending process that turns the patient into an invalid and one that requires the patient's own efforts to help him psychologically adapt to systematic dialysis procedures. At this, psychological adaptation is to be understood as the ability of the person to adequately and critically see the body as an Ego, to perceive its image and be able to evaluate oneself in a situation of stress caused by an incurable chronic illness.

The aim of study: To discover the risk factors of psychological adaptation disruption in patients on prolonged dialysis.

**Subjects and methods:** Sixty-seven patients (43 males and 24 females) with CKD for a period of 15.9±9.8 years took part in the study carried out by the Dialysis Center of the "Ural Medical Center" in Yekaterinburg. The average age of the male patients was 55.5±13.5, which of the female patients was 54.5±14.3. All the patients had been on dialysis from 2 to 15 years. Patients were selected in accordance with principles of medical ethics and deontology, on volunteer basis. Design of study was approved by the Ethics Committee of the Center. Study of the patients' psychological adaptation was carried out with the help of the research methodology of self-attitude ("MIS", by S.P. Panteleyev); with the Lazarus copingtest; with T.F. Cash's questionnaire "SIBID" and "BIGLI". Extent of anxiety and depression was determined by A. Beck's Anxiety and Depression Scale.

**Results:** Social characteristics of participants of the study: 41 (61.2%) patients had higher education; 13 (19.4%) - specialized secondary education; 13 (19.4%) - incomplete secondary education. 83.6% of the patients were married, that is, they had social and family support.

The personal reaction of CKD patients to dialysis can be characterized as worry over what has happened, the desire to discover why the ailment appeared, and fear that life perspectives would have to undergo changes.

Qualitative analysis of the results of a semi-structured interview made it possible for us to see how the educational level of the patients tells on their understanding of treatment motivation. Prior to their illness, patients with a lower educational level and manual laborers saw health only as a valuable factor that would let them solve their material problems. Patients with higher education were seriously troubled by the impossibility to work as they did before and by the possible loss of their social and professional status. Family attitudes, as they thought, did not always render them full emotional support. Women, more often than men, said that their relations with relatives, husband and children had worsened.

More than half of the patients - 69.8% of the males and 58.3% of the females showed a mild degree of depression (sub depression) characterized by such symptoms as obsessive ideas, anguish, apathy, disruption of sleep. In spite of all this, they tried to maintain former working activity; as doctors say, often by simply ignoring their serious somatic illness. At the same time, 25.6% of the men and 16.7% of the women showed an absence of depressive symptoms. Medium seriousness of depression was experienced by 4.6% of the men and 12.5% of the women. Male patients did not show moderate or serious depression.

Thirty of the patients (44.8%) on dialysis for less than 5 years showed an exaggerated negative attitude to various aspects of life activity, with thoughts about uselessness of existence. Only after they had been on dialysis for five years, these patients showed a relative adaptation to their changed situation which, however, might not always be successful from the point of view of psychological adaptation. In other words, emotional stress, anxiety, depressed mood turn into the so-called "rehabilitation motivation", caused by deficient reflection functions, when the difference between real self-sensation and the desired one is leveled out.

At the same time, study of attitude to oneself (R.S. Panteleyev's methodology), in the form of emotional evaluation of oneself according to criteria formed as a result of one's life experience, points to tension in self-attitude in most patients, which, in its turn, does not exclude the possibility of its influence on the quality of answers that show a generally high anxiety background. These patients experience an internal conflict which is reflected not only on a high scale index of the same name, but is also present in the discordant combination of high scales of "privacy" and "self-confidence". Higher, in comparison with the norm, indices of self-evaluation and self-acceptance can also be seen as disadaptive mechanisms of psychological defense. All in all, internal conflict, typical for patients of this group, blocks the possibility of forming new flexible criteria of self-evaluation and body image. It al so prevents a wider scope for emotional life.

Analysis of personal and environmental coping resources of patients (Lazarus coping test) on prolonged dialysis shows that social support and self-control are the prevailing strategies, a fact that is, to a greater degree, connected with the dependence of patients on social norms and environment, and to a lesser degree, on openness and self-evaluation. Combination of the permanently renewing internal conflict and self-control speak of the cyclical strengthening of non-effective personal mechanisms with absence of resources that would help find a way out of the crisis caused by incurable disease and dialysis treatment.

Body image, seen as a self-consciousness structure, is inseparably linked to self-evaluation, which, on the one hand, summarizes the past experience of the individual and, on the other hand, forms new information as to the body image of self. The ontogenetic basis of body image is self-evaluation and attitude to oneself. The psychological unification of body image and self-evaluation presupposes achievement of certain synchronization in their dynamics, which, very often, is accompanied by expressed emotional reactions and affective fluctuations. Studies of body image based on "SIBID" and "BIGLI" questionnaires showed a one-direction vector of dynamics of these indices in dialysis patients. Thus, the "SIBID" test index that reflects the evaluative and emotionally colored aspect of body image that correlates with the difficulties of psychological adaptation (low self-evaluation, social anxiety and depression) is 2.12, which is almost twice as high as the norm (1.17). At the same time, the "BIGLI" test index, which shows the influence of the body image as seen by the individual as a whole (integrity of image) on various aspects of life activity (self-sensation, interpersonal and social functioning, physical activity) is 2.47, and it also surpasses the norm (1.24). Patients speak of dissatisfaction with body image, but, at the same time, deny its influence on the quality of life.

**Conclusions:** Thus, the risk factors that we have studied disrupt the psychological adaptation of patients on prolonged dialysis and, on the whole, point to the necessity of psychological correction and rehabilitation as an obligatory part of the treatment and rehabilitation process.

## THE DYNAMICS OF PSYCHOPHARMACOTHERAPY EFFECTIVENESS IN COMBINATION WITH PSYCHOTHERAPY DURING THE TREATMENT OF PATIENTS WITH SOMATOFORM DISORDER

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**Background:** At present, the somatoform disorder (SFD) etiopathogenesis is considered within the biopsychosocial paradigm, which postulates the equivalent participation of personal, social and neurobiological factors in given pathology progress. On this basis, the psychotherapy plays the most important role in the treatment of patients from the relevant population along with pharmacological methods. The psychotherapeutic analysis of clinical examples shows that even the most typical endo- and somatogenic psychopathological phenomena, considered mainly as a product of the procedural-biological mechanisms of action, have a plentiful unconscious sense. At the same time, such a meaning in the psychotherapeutic process sometimes undergoes significant changes until it becomes apprehensible. This fact allows us to make the assumption that, following a change in the psychological mediation of various aspects in pharmacotherapy, its effects on the patient may change. Cases of changes in action of the same drugs in the process of complex treatment of different clinical group patients are described in few psychiatric publications.

**Objective:** The appropriate study has been undertaken in the current situation of data lack on psychodynamic aspects of patient response to psychotropic drugs during a complex psycho-and pharmacotherapy.

Subjects and methods: The dynamics effectiveness study the number of psychotropic drugs in the process of their use together with the psychoanalytically oriented psychotherapy was conducted as part of a randomized controlled study of indications for this complex treatment in patients with SFD. A total of 80 patients suffering from different variants of SFD (56 women and 24 men aged from 18 to 65 years, mean age - 41.6±3.3) were examined using psychopathological and psychodynamic methods. The sample was divided on two compared groups (40/40) by blind method. The research group received the short-term group psychoanalytic psychotherapy (group analysis) for 3 months with a frequency of 1 session per week. The control group participated in a psycho-educational program that was completely comparable in frequency and duration of sessions and was deprived of psychotherapeutic interventions. The patients of both groups received psychopharmacotherapy unchanged and of the same type in parallel for each clinical diagnostic subgroup. In accordance with this report topic, its materials are based on the dynamic observation of main group patients (n=40). Both types of treatment were performed by the same doctor. Accordingly, as a psychotherapist, he positions himself as a partner and assistant (alliance, democratic relationship model), and as a psychiatrist - managing and controlling person, in relation to which the patient's position inevitably approaches the passive-dependent model (authoritarian-paternalistic). In the process and according to the results of this study, the doctor successfully coped with the above described conditions for such therapy. This professional stability made it possible to reveal the heterogeneity of the dynamics variants for their mental state in the situation of cyclical changes in the therapeutic parameters of their doctor. At the same time, special attention was drawn to the phenomena of changes in the therapeutic response of patients to the stable combinations of psychotropic drugs received.

**Results:** Based on the latter criterion, two main variants of the patient's dynamics in subjective assessment of the psychopharmacotherapy effects when combined with the psychoanalytic psychotherapy were determined - stable and labile. At the same time, it was established that these variants correspond to the object relations structure of the patients representing these subgroups. These structures were determined on the basis of a change in the transference and countertransference nature registered in the group psychotherapeutic process. Approximately 2/3 of patients with SFD (n=24) show the labile dual nature of relationship to the most significant objects for them, manifested in the cyclical change from their idealization to derogation and vice versa. There are no exceptions for drugs, which in the patient intrasubjective space constitute at the same time "bad" and "good" object representations with transient or partial property, and the relationship to them has a vivid imprint of the parent type object relations. This imprint is superimposed on the actual pharmacological effect of these drugs, substantially preforms it, and in some cases overlaps it. The phenomenon is reflected, for example, in observations, when patients try to stop a therapy during periods of symptoms exacerbation, but they are carefully taken drugs as a supportive agent during periods of a significant symptom relief. The object relations structure in these patients is characterized by clear signs of *splitting*. Internal conflicts corresponding to this structure reflect the immaturity of self-identification and interpersonal relation spheres among these patients. In conjunction with other diagnostic signs, this allows us to state a borderline level of personal functioning in this patient group. There are no detected signs of ambivalence towards the most significant environment figures and the drugs taken in 1/3 of patients (n=16). The structure of object relations in them is

characterized by greater stability without signs of splitting. The subjectively mediated action of psychotropic drugs corresponds to their average statistical effects for most patients and includes both positive (relief of anxiety-affective and somatoform symptoms) and negative (drowsiness, decreased active attention, emotional dullness, etc.) phenomena. At the same time, no coincidence of these effects nature with the configurations of their object relations was recorded, and the preparations themselves did not carry any object properties. These patients, as a rule, show the signs of *neurotic level in personal functioning*, and have a sufficiently mature self-consciousness structure, and are well socialized.

**Conclusion:** It is obvious that the biologically determined effects of the pharmacotherapy closely overlap with the phenomena of the patient's subjective-personal response to the psychotropic drugs. The initial situation of such overlapping requires a more detailed psychotherapeutic study, including the aim of development differentiated indications and contraindications of individual psychopharmacological agents and a combined treatment in general. The establishment of the intrasubjective (projective-objective) component of the psychotropic drugs action accompanying the psychoanalytic psychotherapy provides the important diagnostic information. The discovery and development of the unconscious component in such phenomena along with the classical psychoanalytic work in fields of structural and dynamic parameters of the patient's personality and his symptoms, can serve as an important additional tool for the achieving the ultimate goals of complex SFD therapy.

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## ECOLOGICAL PATHOMORPHOSIS OF MENTAL DISEASES

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**Background:** Over the past 30 years, global changes took place in the post-industrial space of Russia in ideological, religious and material spheres of life. The standards for the production of chemicals (detergents, cosmetics ...), food products have changed; in many places "open" warehouses and abandoned radiation laboratories violate the biosphere ecology. In this regard, the relevance of environmental pathomorphosis of diseases on the territory of modern Russia has increased.

Environmental pollution with chemical and radiation factors cause damage of the histomorphological structures of the brain and brain neurometabolism. Pathogenic effects of environmental factors on the organic and personality predisposition of the individual as an additional negative factor should be taken into account. This contributes to the continuous formation of the causal mechanisms of pathomorphosis of the mental pathology.

No less relevant are the cultural mechanisms of pathomorphosis: incommensurable urbanization of life with the collapse of patriarchal relations, the increase in alcoholism and anesthesia, significant changes in the value system, an abrupt change of collectivist ideology to individualistic (nothing personal, just business). Local wars, terrorism, ethnic conflicts with the loss of the value of human life, coexisting with a peaceful life. Here we mentioned only part of the cultural mechanisms in which pathogenic toxic and psychological effects on the brain and human consciousness intertwining, causing a cascade of biochemical disorders, including oxidative stress.

The aim was to objectify the variability of the syndrome structure of mental pathology in individuals from regions with favorable or unfavorable ecological and chemical situation.

**Subjects and methods:** Clinical, psychopathological, psychopathological and neuro-psychological research methods, medical statistics methods - discriminant and cluster analysis, were used. Two groups were composed of the 204 adolescents. Group 1 consisted of 120 adolescents from region polluted with complex chemical inorganic compositions; group 2 consisted of 84 teenagers from the resort region.

**Results:** Multivector pathopsychological and mathematical analysis revealed combinations of pathopsychological markers and their significance in the differential diagnosis of the compared groups: the emancipation rate was 11.4%, the rate of vegetative instability - 12.3%, the indicator of obsessive-phobic disorders - 6.4%, neurotic depression rate - 8.5%, psychopathization rate - 7.2%, neurotic anxiety rate - 43%. Living for more than 10 years in an ecologically and chemically polluted environment causes an increase in constitutional anxiety, combined with psychopathy in the form of conflict, prejudice, hostility, constant dissatisfaction with their lives and the behavior of relatives, suicidal blackmail. Emancipation reactions are expressed as disagreement with the opinion of relatives, peers, the desire to act contrary to the decisions of parents, the desire for false autonomy, constant psychological resistance to elders, up to emotional lability with suicidal acts. These personality changes reflect the psycho-typological negative

drift from the range of the psychological norm towards the range of the borderline anomalous personality under the influence adverse environmental factors. The aggravation of the manifestations of psychopathy and emancipation is observed against the background of high rates of masculinization, which indicates an increase in the psychoneuroendocrine activity.

The detected negative psycho-typological drift is accompanied by the transformation of psychological personal experiences into pathopsychological with an increase in neurotic depression (dysthymic mood, pessimism, impoverishment of motivations, a feeling of hopelessness), obsessive-phobic manifestations (increased anxiety, fear, obsessive experiencing repeated splashings of fear and anxiety, self-distrust). Vegetative instability is especially noticeable when exposed to banal stimuli, when fluctuations in blood pressure, pulse, hyperemia, hyperhidrosis, algic sensations occur. Against this background, the psychological tendency to alcoholization is growing and stabilizing, reflecting the formation of personal decompensation.

Pathopsychological express-diagnostics can distinguish adolescents whose psycho-typological features, psychological and mental state have undergone abnormal variability during long-term interaction of internal constitutional factors with environmental, in particular, with complex chemical inorganic compositions.

At the same time, the psycho-physiological constitution of a person undergoes "loosening" with changes homeostasis, which provides a more pronounced and global impact of adverse environmental (chemical) factors with the appearance of non-typical symptoms in the structure of the pathopsychological syndromes in adolescents. This is so-called intra-syndromic pathomorphosis. Thus, the appearance of dysthymic symptoms in the structure of depressive disorder, the severity and persistence of chronic pain, most likely indicate an increasing organic variability of the brain.

The combination of interconnected and reciprocal triad: psychopathsation, masculinization and alcoholism draws attention, reflecting the neurotoxic and neuroendocrinotoxic destructive effects of chemical environmental factors.

Thus, a polluted environment can destructively affect neurometabolism of the brain, violating the standard psychological and mental health parameters of adolescents living in regions with unhealthy ecology. The results long-term experimental psychological study of adolescents born and living in chemically polluted habitats have found persistent neurotoxic and psychoneuroendocrinotoxic effects of complex chemical inorganic compositions, manifested by intra-syndromic and constitutional-oriented pathomorphism.

**Conclusion:** Under the influence of external and internal causes, the pathogenetic essence of abnormal brain variability changes with the development of psychopathological and pathopsychological symptoms, which are not typical for adolescents from the regions with the healthy environment.

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## SOCIOCULTURAL PATHOMORPHOSIS OF MENTAL DISEASES

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**Background:** In the modern history of Russia, parting with childhood marks the transition from fairy tales to misanthropic "cartoons", in which there is no conscience, love, kindness, but greed, hatred, hypocrisy and betrayal abound. The so-called "globalization" conflicts with national traditions, mentality, ethnic and linguistic barriers that impede "globalization". The conflict of generational change is growing, accompanied by a change of collectivist ideology to an individualistic one and the realization of the egoistic psychological principle "nothing personal, only business," which leads to an increase in alcoholism and drug abuse.

The purpose of the study is a comparative assessment of manifestations of conversion disorders among the population of the Caucasus region in areas where social and military cataclysms occurred.

**Subjects and methods:** The study used clinical psychopathological, pathopsychological and statistical methods. Phenomenological, psychopathological, and pathopsychological conversion manifestations were analyzed in 72 adults aged 18 to 45 years. All objects professed Islam and survived two local wars.

**Results:** In our observations, after two social and military catastrophes on the territory of Chechen Republic, a decrease in the cultural and general educational level of the population was observed, which led to a conversion type of distortion of characterological and personality reactions. Archetypical ethnoreligious ideas about dark beings Jins" that "penetrate" inside and seize the body and soul of man have

been actualized. At the height of everyday psycho-traumatic situations, intractable due to national traditions and mentality, a psychomotor attack develops with "loss of consciousness", when a patient hears almost everything that happens around, sees the behavior of relatives, notes, who helps him during an attack, and who does not help, and remembers what is happening.

During a conversion attack of the type of "large convulsive hysterical attack, there is first a slight tremor of the whole body, then a fine tremor turns into a "body beat" on the ground, and then the chaotic twisting and spreading of the limbs begin. A conversion attack can last from 3-5 minutes to 2-3 hours. A fragmented twilight state of consciousness is noted, but the cortical functions are not completely disabled. At this time, the patient makes inarticulate sounds, reminiscent of "mooing" or loud cries with a modified voice modulation, reminiscent of the roar of wild animals. Mimicry is distorted and becomes torturous. It is assumed that at this moment there is an active movement of the "Jin" through the body, which is accompanied by tears and sobs. Only separate episodes of memories after an attack remain. In this case, if the "gin" seizes and controls the person, then in a rude voice, demands are made so that, for example, the husband or any relative does not approach. "Jin" claims that the patient belongs to him personally, he "searched for him for a long time", now he "found it and will not give it to anyone". "Jin" usurps the role of her husband and drives away the real husband with shouts, screams, curses and threats, at least "to bring damage". The husband usually waits patiently for the expulsion of the "Jin", who often "moved" through the veins of the patient and "hid" in certain organs.

During this, sometimes 2-5-year period, representatives of religious institutions - mullahs - actively cooperated with the patient, using, often successfully for a short period of time, Islamic spiritual practices, in particular, exorcism, reading the Koran and other methods of Islamic medicine. It should be noted that during Islamic practices, an improvement was noted, and then the patients had the same conversion attacks with partial twilight stupefaction, with even greater external manifestation, expression, shouts, "roar of gin", which "did not want" to leave body and soul of the patient. Out of the attack was accompanied by fragmentary amnesia. It should be noted that conversion disorders almost always culminate in the formation of the depressive syndrome of the neurotic level. Patients partially understand the relationship of mental disorders with the essence of the traumatic situation, when, for example, the parents of the husband did not want to see the patient as a wife or the husband had a girlfriend in love with him before the wedding. It is assumed that it was this girl that "caused damage".

It should be noted that the conversion states were characterized by partial twilight stupefaction in the form of a narrowing of the field of consciousness, without completely turning off the higher cortical functions, with fragmented subsequent amnesia. Psychopathological analysis of the entire period of the disease showed that personality, pathocharacterological, neurotic, or psychopathic manifestations prevailed and increased.

We believe that repeated extended social and military catastrophes in Chechnya led to defensive actualization of the religious-ethnic archetypes of response among the population in the form of conversion syndromes, which may be due to the observed decrease in cultural and educational levels.

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## RELIGION AND SPIRITUALITY - PROTECTIVE FACTOR IN SUICIDE ATTEMPTS IN PEOPLE WITH DEPRESSION

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Spirituality as a dimension of quality of life and well-being has recently begun to be more valued within the treatment approaches to mental health. A range of studies have also looked at spirituality or affiliation to spiritual or religious groups in relation to suicide and suicide attempts. Nisbet et al. (2000) reported that the suicide rate is four times lower in people who attend religious activities. In this study of 31 patients with depression, it is found that those who are attending religious activities, or those who have reported having a spiritual faith, were significantly less likely to have suicide attempts. Results suggest that religious attendance and spiritual faith is associated with decreased suicide attempts. These findings that the depressive patients who have no religious affiliation, who are not attending religious activities or having spiritual faith, have higher rates of suicide attempts gives an association that religion and spirituality may act as a protective factor against suicide attempts, because of the religious social mores or 'rules' which prevent behaviors as suicide attempts.

## A CLINICAL STUDY OF FEEDING AND EATING DISORDER FEATURES UTILIZING PSYCHOLOGICAL TESTS AND QUESTIONNAIRES

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**Background:** Eating behavior denotes the collective relationship to food and feeding and feeding stereotypes both in normal and in stressful conditions. Feeding and eating disorders include a wide spectrum of disorders that can range from restrictive behavior to overeating. Feeding and eating disorders include many, predominantly borderline, psychopathological symptoms and syndromes (diagnostic features), which can impede diagnosis, and includes a propensity (trend, tendency) of patients for attempting to cover up motives and features of pathological eating behaviors. In order to assess the psychometric features of patients, a large variety of test and questionnaires have been developed worldwide in the last decade. However, in the Russian Federation, there is a marked deficit of valid questionnaires, adapted into the Russian language.

**Objective:** To study the viability of the application of specialized questionnaires and their efficacy in uncovering feeding and eating disorders, their specific characteristics when applied to the Russian population. Methods. Utilizing the resources of the PFUR department of Psychiatry and Medical Psychology and the Center for the Study of Eating Disorders clinic, the data of 95 in-patients and out-patients, 68 of whom were students of the medical institute (aged 19-25) and 27 were patients of the clinic (17-24), with the help of the Eating Attitudes Test and the "Cognitive-behavioral patterns of eating disorders" questionnaire. The Eating Attitudes Test relates to an individual's relationship with eating. It is a diagnostic instrument for eating disorders developed by David Garner at the University of Toronto. The Russianlanguage version was adapted relatively recently by T.A. Meshkova and N.O. Nikolaeva. The original scale was intended as a method of diagnostic screening for anorexia nervosa and consisted of 40 questions. In 1982, the creators modified the scale and created EAT-26. This scale showed a significant correlation with the original scale. Currently, the EAT-26 scale is the most common instrument used to study eating and feeding disorders and includes symptoms of disorders in the cognitive, behavioral, and emotional domains (without including subscales). The 'Cognitive-behavioral patterns of eating disorders" questionnaire is designed to uncover the presentation of the individual, study the trends of eating behavior, and for the differential diagnosis of anorexia nervosa, bulimia nervosa, and binge-eating disorder/ The questionnaire was developed at the Altai State University by O.A. Sagalakova and M.A. Kiseleva. It consists of 103 questions, divided into seven scales: food control; weight assessment avoidance; tendency to over-eat; restrictive eating behavior; emotional (emotiogenic) eating behavior; influence of body weight on selfevaluation; anorexic trends. In addition, the results can indicate the severity of the disorder.

**Results:** out of 68 students, 6 (8.8%) had a sum EAT-26 score (>20) that reached critical values. Of the 27 in-patients questioned the sum EAT-26 score (>20) reached critical values in 100% of cases, which speaks to the test's high reliability. The test is intended for screening, and, as such, is insufficient for a conclusive diagnosis, but a high result is indicative of a high probability of significant disturbances in eating behavior, presumably anorexia nervosa and bulimia nervosa. According to the results of the "Cognitive-behavioral patterns of eating disorders" questionnaire, of 68 students, 39 (57%) have a marked predisposition to eating disorders of varying degrees of severity: form mild (borderline values on the following scales: emotional (emotiogenic) eating behavior - 4 (6%); weight assessment avoidance in certain situations - 19 (28%); weight assessment avoidance in all circumstances - 4 (6%); to a marked predisposition to feeding and eating disorders (borderline values on the anorexic nervosa, bulimia trends scale - 8 (12%). Among in-patients, the questionnaire shows a significantly more pronounced intensity of distress concerning eating behavior: 27 (83%) show borderline and maximal results on all scales, 4 (17%) have maximal results on all scales, which attests to the existence of pronounced, clinically diagnosed eating disorders in the form of anorexia nervosa and bulimia nervosa.

**Conclusion:** The presented data shows the significant diagnostic efficacy of the EAT-26 for the screening of feeding and eating disorders, which can influence "at risk" groups, which require the consultation of a mental health professional. The "Cognitive-behavioral patterns of eating disorders" questionnaire helps uncover eating disorder trends, and allows to trace specific features of eating behavior. Thus, the provided test and questionnaire present a wide spectrum of application in clinical practice. The utilization of psychological testing allows distinguishing at-risk groups for feeding and eating disorders, specifying and quantifying data, concerning symptoms of eating behavior disturbances, as well as allowing the assessment of the course of the disorder for timely and appropriate treatment of patients.

## CLINICAL AND PSYCHOPATHOLOGICAL FEATURES AND QUALITY OF LIFE OF PATIENTS WITH IRRITABLE BOWEL SYNDROME. PSYCHOTHERAPEUTIC ASPECTS OF THE PROBLEM

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According to the data of a different scientific researches, the evaluation of personal accentuations and psychological profile of patients with IBS, using psychodiagnostic methods, shows the high occurrence of the emotive type of personality and the presence of different psychoemotional disorders in more than 80% cases. In recent years, most researchers have hardly questioned the idea of the essential role of psychotherapy in IBS treatment, especially in those cases when the psychogenic component in the development of this disease is obvious. Patients with IBS tend to have also symptoms of anxious depression, hypochondriacal fixation on well-being, carcinophobia. Prolonged nature of the disease leads to persistent pathocharacterological changes, manifested in various variants of psychosomatic development of the individual. Due to multiple fears, a lot of patients demonstrate a tendency to social isolation, which may lead to a refusal to seek help from the psychotherapeutic consultation during periods of escalation of symptoms, as well as during remission, which determines the necessity of psychotherapeutic intervention in both outpatient and inpatient format.

At the stage of treatment in the hospital, the preference is given to techniques of short-term psychotherapy, focused on the rapid resolution of problems and the change in patient status. These could include first of all relaxation techniques, as well as short-term positive therapy, NLP, some Gestalt therapies, Erikson therapy with resource trances. At the stage of maintenance treatment after discharge, or when patients were asked for deeper work, psychodynamic techniques were used.

In addition to a significant number of researches on the use of suggestive techniques, a positive therapeutic effect has been described from the inclusion of methods of behavioral psychotherapy in the treatment of IBS, focused on correcting misconduct and inability to respond correctly to stressful situations. In the treatment of functional disorders of the gastrointestinal tract, one of the most common methods of PT is used - the method of progressive muscle relaxation.

A number of studies on the formation of psychosomatic symptoms of the gastrointestinal tract in patient cases with various types of family relationships, convincingly shows that a systematic approach may be useful for conducting family psychotherapy with patients suffering from IBS (3,7,9). It is noted that in the conditions of disharmonious family relations, with a violation of hierarchy, structuredness, problematic relations with the mother since childhood, there has been an increased tendency toward the formation of gastroenterological disorders in combination with increased anxiety. When studying the psychological characteristics of families with children-psychosomatics it was noted that the emerging abdominal pains performed a morphostatic function.

The targets of psychotherapy treating different variants of IBS are specific symptoms that characterize the disease: pathological anxiety, depressive disorders, hypochondriacal orientation of experiences, various phobias (primarily carcinophobia). An important aspect of therapy for this category of patients was also its focus on the resocialization of patients, since the chronic character of IBS led to the development of certain social restrictions, avoiding behavior and the formation of a socio-psychological position of self-isolation.

The tactics of psychotherapy are built taking into account the stage of the disease. At the initial stages of the IBS, when the psychotraumatic situation clearly sounds in the experience, first of all, cognitive-behavioral psychotherapy is used, aimed at restructuring the patient's relations and attitudes, optimizing the mechanisms of psychological defense. Efforts are directed primarily to psychological awareness and the search for adaptive coping strategies aimed at resolving the underlying conflict that supports the disease.

At the latest stages of the disease, with the emergency of persistent psychoemotional disorders, as well as the formation of different variants of pathocharacterological (psychosomatic) development of the personality, the effectiveness of psychotherapy is reducing. An active drug correction of existing mental disorders is required. At this stage of the disease, psychotherapy is aimed at supporting patients, preserving the emotional connections of the patient, and social adaptation.

## PERINATAL COMPLIANCE: A MULTIDISCIPLINARY APPROACH TO PROTECT THE MENTAL HEALTH OF WOMEN DURING PREGNANCY

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Many specialists are involved in solving the problems of preventing complications of conception, pregnancy, childbirth, the postnatal period, in organizing and conducting care and treatment in case of violations: obstetrician-gynecologists, therapists, neonatologists, physiotherapists, exercise therapy practitioners, psychologists, social workers, etc. their actions largely depend on the success of the work. However, a paternalistic approach to providing obstetric outpatient and inpatient care has dominated our country for a long time. In the middle of the last century, G. Engel, 1977 formulated and proposed an alternative to the prevailing generally accepted biomedical approach to assisting, the formation of compliance. The practice of compliance was hardly penetrated into the practice of obstetrics, gynecology, neonatology. It is the insufficiency of the psychosocial approach in Soviet medical institutions that explains the lack of access to psychological assistance in antenatal clinics, the tendency to separate the newborn and the puerperal, the prohibitions on relatives visiting the maternity wards, neonatal wards, etc. The introduction of the biopsychosocial approach was reflected in the order issued by the Russian Ministry of Health and Social Development No. 808n, according to which the cabinet should include a cabinet psychotherapist. A psychotherapist (at the rate of 1 post for 10 posts of specialist doctors), a social worker (1 post), and a medical psychologist (1 post) appeared in the staffing standards of the antenatal clinic staff. The emergence of new specialists required the introduction of a multidisciplinary approach and the formation of perinatal compliance, the essence of which is in the mutual understanding and partnership of both women and men, and all specialists who contribute to the successful flow of the reproductive process.

Thus, the existence of perinatal compliance is not limited to the terms of the perinatal period accepted in obstetrics, but extends to all stages of the reproductive process (conception, pregnancy, childbirth and the existence of bonding in the postnatal period). Awareness of the need for the formation of perinatal compliance at the earliest stages of gestation and targeted work in this direction structures the activities of perinatal psychologists, psychotherapists, obstetrician-gynecologists, is a prevention of pregnancy and childbirth complications, and prevents the occurrence of iatrogenic, psychological and didactogenesis. Of particular note is the role of perinatal compliance in improving the interaction of doctors (primarily obstetrician-gynecologists) and perinatal psychologists, in establishing partnerships between them, in implementing a multidisciplinary approach to work. At the same time, the mutual understanding of specialists contributed to increasing confidence in them... At the same time, mutual understanding of specialists contributed to increasing the trust of patients in them, their willingness to comply with recommendations and appointments. With this type of interaction, the patient and her relatives expect discussion and agreement with the doctor and psychologist of all the actions taken, leaving the right to decide for themselves. The formation of perinatal compliance has significantly changed the content of prenatal training. To participate in them are men who, among other things, are preparing for partner births. The recommendation to carry out family-oriented (partner) births in obstetric hospitals is contained in Clause 31 of Order No. 572n of the Ministry of Health of the Russian Federation dated November 1, 2012 "On Approving the Procedure for Providing Medical Care in the Obstetrics and Gynecology Profile". Perinatal compliance is implemented in neonatology by introducing a family-oriented methodology "Open Resuscitation", which involves the wide involvement of parents in assisting medical personnel trained to cooperate with them, in monitoring the newborn, in caring for him, in his treatment at the intensive care unit and intensive therapy. Prior to the introduction of the Open Resuscitation methodology, a newborn was physically separated from his mother just at the time when they were both the most vulnerable, which led to a violation of the preservation of antenatal dyadic relationships and the formation of a postnatal dyad (bonding). Open resuscitation provides the formation within a few weeks of communication between the mother and the child, their close physical contact. As a result, after discharge from the hospital, the mother feels competent in matters of caring for the child, confident. The practice of introducing a family-oriented approach into neonatology has yielded good results. Studies have shown that, compared with the indicators noted before this introduction, breastfeeding is becoming better, children gain weight faster. When using the "kangaroo method", a statistically significant decrease in the frequency of mortality and sepsis is noted, the duration of nursing of a child in stationary conditions decreases, children grow better and faster, more often after discharge they get natural nutrition.

## IMPORTANCE OF CLINICAL AND PSYCHOLOGICAL PECULIARITIES OF ADOLESCENTS IN THE EVALUATION OF ADAPTATION TO NON-REMOVABLE ORTHODONTIC EQUIPMENT

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Introduction: Today, among all age groups, the problem of interruption of orthodontic treatment that has begun is still relevant. The main reasons for this phenomenon are the duration of use of orthodontic structures, the inconvenience associated with this, general health, age, social conditions, pain in the teeth, discomfort, diction disorders, lack of motivation. In addition, according to numerous authors, psychological factors play an important role in the course of the orthodontic treatment process. It is known that the peak of the clinical manifestations of dentition is in adolescence. It was during this period that adolescents are most difficult to respond to physical disabilities, which is often due to the lack of psychological defenses, the transformation of personal attitudes, including due to hormonal changes. Against this background, the inconvenience experienced by adolescents, the incorrect formation of attitudes to communicate with peers, the perception of their treatment forces them to often interrupt the initiated correction. Incomplete treatment is fraught with recurrent pathology, periodontal occlusive trauma, and dysfunction of the temporomandibular joint. In this regard, the psychosocial aspect of research in orthodontics remains highly relevant.

**Objective:** Assess the relationship of clinical and psychological features and adaptation to orthodontic appliances.

**Subjects and methods:** On the basis of the Clinical Center for Maxillofacial, Reconstructive-Restorative and Plastic Surgery, 40 adolescents aged 12-17 years were examined, which were divided into 2 groups in accordance with the periodization of the psychological development of D.B. Elkonin (group 1 - 12-14 years (20 adolescents), group 2 - 15-17 years (20 adolescents). The main research methods were: dental, clinical and psychological methods, as well as a statistical method, which was carried out using an application package Statistica 12.0 and Microsoft Office Excel 2010. Psychometric techniques were used: 14-factor personal questionnaire of Cattel (option for teenagers from 12 to 18 years, consisting of 142 questions), test SAN (well-being, activity, mood), questionnaire of situational and personal anxiety of Spielberger - Khanin, a questionnaire was used to assess the degree of adaptation to fixed orthodontic equipment AKOL.

**Results:** Initially, an assessment was made of data obtained by the Kettel questionnaire. It was found that in group 1, high values of factor «E» were found, which determined the leadership style of interaction with others. However, this fact was not associated with true leadership, but rather was a feature that manifests itself more in extreme situations where there is a need to maintain temporary leadership in informal groups. In addition, such individuals were distinguished by high tenacity in the fight against norms, attitudes in the group, a tendency to self-affirmation. Also, high values in group 1 were found by the factor «Q3», which was reflected in high control of behavior, social sensitivity, care for their own reputation. The image of «I» of such personalities almost coincided with the requirements of society.

Patients of group 2, on the contrary, differed in high values of factor «I», which corresponded to the tendency to avoid responsibility in work and personal relationships. Such individuals were more characteristic of unreasonable anxiety, impatience, impracticality, lack of autonomy, dependence, demands to the attention of others. Such individuals did not tolerate rudeness and rough work. Estimates for the remaining scales of the Kettel questionnaire were in the range of moderate values.

The SAN questionnaire in groups 1 and 2 showed similar results, namely, reduced values on the «wellbeing» and «activity» scales, as well as average values on the «mood» scale, which indicated an even background of mood, and, at the same time, some psychophysical fatigue surveyed adolescents of both groups. It can be assumed that such data on the SAN questionnaire reflected fatigue associated with wearing fixing orthodontic systems. The Spilberger-Khanin anxiety questionnaire showed that in groups 1 and 2 the levels of situational and personal anxiety were in the zone of moderate values. At the same time, the level of situational anxiety was higher in adolescents of group 2. The levels of personal anxiety in both groups were close. Next, an assessment was made of the degree of adaptation to fixed orthodontic equipment using the AKOL questionnaire. The criteria of the questionnaire were the following gradations: good adaptation (3 points and below), satisfactory adaptation (4-6 points), poor adaptation (7-9 points), disadaptation (10 points and above).

As a result, it was found that the median value according to the AKOL questionnaire in group 1 was 4 points, which corresponded to satisfactory adaptation. In group 2, on the contrary, the median value according to the AKOL questionnaire corresponded to 1.5 points, which explained the good adaptation of these patients. To assess the relationship of clinical and psychological indicators and the degree of

adaptation to fixed orthodontic equipment, multiple regression analysis was used. The value according to the AKOL questionnaire was selected as the dependent variable, the values of the scales of the Cattel questionnaire, the SAN questionnaire and the Spilberger-Khanin anxiety questionnaire were taken as predictors capable of predicting the value of the dependent variable. As a result, a multiple linear regression model was constructed, which with 75 percent probability predicted the quality of adaptation in patients. Statistically significant predictors of the regression model were Kettell's questionnaires «E», «I», «Q3». The estimated potential predictors of the questionnaires used were not statistically significant.

**Conclusions:** This study was devoted to assessing the relationship of the clinical and psychological characteristics of adolescents undergoing orthodontic treatment, and the degree of adaptation to fixed orthodontic equipment. The findings of the study indicate that the quality of adaptation of adolescents is predominantly linearly dependent on their personal characteristics, which were determined using the Cattel questionnaire. Understanding the psychological characteristics that make it possible to predict the adaptation potential of a teenager to fixed orthodontic equipment will allow the orthodontist to take a more differentiated approach to providing quality orthodontic care to each teenager, depending on his personal characteristics.

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## IMPORTANCE OF THE VOCATIONAL EDUCATION AND COMPETENCES OF PARENTS IN THE RECOGNITION PSYCHOGENIC PSYCHIATRIC DISORDERS AMONG CHILDREN

#### Olga Esina & Alyona Sidenkova

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**Background:** Research, set in different countries, shows a lower coverage level of diagnostic and curative assistance of juvenile patients with psychiatric disorders than in adults, and also problems with professional training of child mental health specialist. The results of epidemiological research-based studies were compared with the level of registered prevalence of PTSD (Posttraumatic Stress Disorder) of children in the Sverdlovsk region, this comparison showed a significant (by a thousand) difference. The Factor of parental competence needs to be studied, since parents often minimize the symptoms of PTSD of their children.

The aim of the research is to investigate the ability of specialists from mental hospitals and ability of parents to correctly recognize the PTSD in children.

**Subjects and methods:** We investigated 55 specialists from mental hospitals (age 43.314±2.978, 16 male, 39 female). It was 13 psychotherapists, 11 clinical psychologists, 31 psychiatrists. 26 specialists had training in PTSD before this research (10 male, 16 female, age 40.464±3.105). Control group consisted of 29 specialists (6 male, 23 female, age 46.783±5.471).

Also we investigated 109 parents of adolescents (age of adolescents 15.7±1.02). Had been surveyed 50 parents of patients of the Child Psychiatric Clinic and 59 parents of healthy students of school №138 of Ekaterinburg. Main group consisted of 59 parents (7 male, 52 female, age 40.21±1.04). Control group consisted of 50 parents (7 male, 52 female, age 40.21±1.04). We used the semistructured inquirer. The ability to correctly recognize the disorders was revealed using the amount of right answer. We gave every answer mark "correct/incorrect". It was made correlation analysis of obtained data (answers, socio-demographic features, and professional qualities).

**Results and discussions:** We revealed that level of identification of PTSD among others disorders had low result (level of identification of PTSD in young children was 65.4%, in adolescent - 67.3%). We didn't reveal significant correlation between correct identification of PTSD and socio-demographic features of specialists (p>0.05).

We revealed that psychiatrists have low level of identification of PTSD in young children (V Cramer = 0.485, p<0.05). But psychologists have high level of identification of PTSD in young children (V Cramer = 0.363, p<0.05). It was revealed that there is significant correlation between experience in training in PTSD and level of correct identification of PTSD in young children (V Cramer = 0.614, p<0.05).

Consequently, psychiatrists have low level of identification of PTSD in young children in comparison to psychologists. We assume that the reason of this is the predominance of biomedical model in psychiatrists as opposed to biopsychosocial model. Psychiatrists demonstrate the improvements of ability in identification of PTSD after thematic training. So they have low level of competence in clinical features of PTSD in children.

Psychologists demonstrate high ability in identification of PTSD. It is possible that the reason of this is that they have specific education that pays attention to the impact of psychosocial factors on mental health.

We revealed that parents of healthy children have low level of identification of PTSD (72.9% for children and 67.8% for adolescents). Parents of healthy children have lower level for children (V Cramer = 0.277, p<0.05) and have lower level of identification of PTSD in adolescents (V Cramer = 0.263, p<0.05) in compared to parents of mentally disabled children. This may reflect that competences and psychological awareness among parents have a major impact on the recognition psychiatric disorders among children.

**Conclusions:** In this research subjective factors of under-diagnosis of PTSD were found in children, which caused insufficient medical care for juvenile patients in more than half of the cases. Professional training and instruction in PTSD for child mental health specialists and for parents is able to improve in the recognition of PTSD in children, pointing to the need for educational activities.

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## ANXIETY DISORDERS IN WOMEN OF ELDER REPRODUCTIVE AGE IN THE PROGRAMME OF ASSISTED REPRODUCTIVE TECHNOLOGIES (IVF, ICSI)

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**Background:** Anxiety disorders represent the most widespread group of neurotic disorders among women suffering from infertility thus placing this problem to one of the leading places for the investigation in the clinic of assisted reproductive technologies. The combination of two and more factors of infertility happens in more than 60 to 70 per cent. However, in the modern society more than one third of women older than 40 years apply for ART (Assisted Reproductive Technologies).

The aim of the investigation: To reveal the level of anxiety disorders in infertile women of the elder age group in the in vitro fertilization (IVF) programme. The experimental group included 24 women 35.2+4.3 years old having the tube-and-peritoneal factor of infertility. The control group: 22 healthy 34.8+4.2 years old women who applied to the clinic for the annual dispensary observation.

**Methods:** The psycho-diagnostic tests: The Spilberger-Khanin method for revealing the level of anxiety, the Beck test for the diagnostics of the depression, the Toronto scale of alexetimia. The patients were examined at the stage before joining the IVF programme. The statistical processing was carried out using the standard package of statistical programmes Windows 2000. The reliability of differences was evaluated with the help of the Student criteria and the determination of the Fischer angular coefficient. Differences at p<0.01 were considered reliable.

**Results:** 56 per cent of 24 women of the examined group suffered from boundary psychic disorders. The portion of anxiety-depressive disorders was 34.2 per cent. Indices of personal and situative anxiety (in points) in the basic group of women during the first testing were 46/44, the second testing - 48/46. They were 34/32 and 32/30 in the control group. Women of the basic group using the points of the Beck scale evaluated their condition at 25.2±3.8 points. The scale of alexetimia revealed its manifestation in almost 82 per cent of the patients. When asked about the possible use of donor oocytes the response was harshly negative in 98 per cent of 23 patients investigated by the authors. As a result of their investigation the authors conducted a cognitive-behavioral psychotherapy that consisted of 6 sessions during 3 weeks.

**Discussion:** Women of the elder age group undergoing the treatment of the infertility with the help of IVF suffer from anxiety-depressive disorders more often when compared with the control group of fertile women. Besides the revealed psycho-pathological symptomatics within the framework of the border psychic disorder is in conformance with the generally declared world data. A considerable reduction of the cortisol of the plasma was noted in the cognitive-behavioral group where p=0.018 was noted and this was not the case for the remaining part of the patients who did not undergo the psycho-therapeutic correction.

## THE ROLE OF PSYCHIATRIST IN PALLIATIVE MEDICINE

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Palliative care is comprehensive, active care of patients with serious uncurable illness and their families. The aim of palliative medicine is to improve quality of life based on patients and family needs and demands and is practiced by a competent multidisciplinary palliative care team. The transition to palliative care is a significant adjustment for patients and their families. Liaison psychiatry has significant role in palliative medicine. Psychiatrist is important for understanding and treatment of the social, psychological, emotional, quality of life and functional aspects of illnes, accros the illness trajectory (from time of diagnosis of uncurable serious illness until the bereavement period for the members of the family). It is important to recognize individual strength and coping skills in the patient and his family, personality structure of the patient and his/her level of distress. Also, it is necessary to identify vulnerable individuals through various psychological and social factors as predictors of adequate or inadequate adjustment towards the disease and pain. Mental health issues are still underdiagnosed and remain undertreated in palliative medicine. Patients with significant distress are best treated by a combination of psychotherapy and medication. Research is needed into the effectiveness of different psychological and psychopharmacological interventions in palliativne medicine. Palliative mental health issuess should be included in the training of professionals in all areas of medicine, psychology and social work to meet the demands of a patients. The author will also present Croatian national strategies for Palliative Medicine and the current role of psychiatrists in palliative medicine in Croatia.

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## PROFILE AND SEVERITY OF CONDUCT DISORDERS IN ADOLESCENTS WITH JUVENILE DELINQUENCY

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**Background:** Conduct disorders (CD) in adolescents, accompanied by unlawful acts (UA), differ in the mechanisms and conditions in which they are formed.

The aim of the study was to study the profile and severity of CD in adolescents who have committed UA, including those brought up in different conditions.

**Methods:** criteria ICD-10; adapted Russian-language questionnaire "The Nisonger Child Behavior Rating Form: typical IQ version" (NCBRF). Surveyed 130 adolescents (15.75-17.74 years), 96 boys, 34 girls-teen.

**Results:** most of the surveyed - 92 people (70.8%,  $x^2=22.431$ ; p<0.0001) at the time of the survey lived in orphanages (full orphans and children of parents deprived of rights) (1 subgroup). The rest - 38 people (29.2%) were officially registered as living in incomplete or full families (2 subgroups). The predominant number of the surveyed (95 people, 73.1%) were registered in the children's room of the police ( $x^2=27.692$ ; p<0.001). The smaller part of the sample (45 people, 34.6%) was brought to criminal responsibility ( $x^2=12.308$ ; p<0.001) and all of them were registered in the children's room of the police. According to the criteria of ICD-10 it was found that in 6 cases (4.6%) the condition of patients corresponded to mild RP, in 111 cases - moderate (85.4%), and in 13 cases (10.0%) - severe. All patients with severe RP were children from orphanages. The mean values of the following NCBRF scales were significantly higher than the reference values: "Conduct disorders" (t=16.99), "Opposition" (t=8.28), "Sensitivity" (t=13.39), "Hyperactivity" (t=4.46), "Inattention" (t=3.83) and "Emotional disturbances" (t=12.64). In subgroup 1, the average values of composite scales "Conduct disorders" (t=3.515) and "ADHD" (t=2.145) were significantly higher compared to subgroup 2.

**Conclusions:** The results confirm the assumption of heterogeneity of mechanisms of CD formation in adolescents with UA and their different severity depending on the patient's environment (family or children's closed institution).

## HYPERKINETIC AND BEHAVIORAL DISORDERS IN AUTISM SPECTRUM DISORDERS AT AN EARLY AGE

#### Severin Grechanyi

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**Background:** The aim of the study was to identify the differences between hyperkinetic and behavioral activity in early childhood in patients with autism spectrum disorders (ASD) and mixed specific developmental disorders (MSDD). The main group - 89 patients diagnosed with F 84 (according to ICD-10) -  $3.41\pm0.09$  years. The comparison group - 107 patients diagnosed with F 83 -  $3.12\pm0.155$  years.

**Methods:** Adapted Russian version of the technique "The Nisonger Child Behavior Rating Form (NCBRF)", "The Autism Treatment Evaluation Scale" (ATES), questionnaire "Analysis of family relationships" (AFR).

**Results:** It was found that in group 1, the mean values of the NCBRF scales - "Insecure /anxiety" (p=0.024), "Self-Injury/Stereotypic" (p=0.009), "Self-Isolated/Ritualistic" (p=0.001) and below the scale "Problem behavior" (p=0.040) and "Hyperactiv" (p=0.011) were significantly higher. In group 1, a direct correlation was found between the scale of "Self-Isolated/Ritualistic" NCBRF and the scale of "Sensory/cognitive skills" ATES (p=0.512 by Spearman); scale "Self-Injury/Stereotypic " NCBRF and "Health, physical development, behavior" (p=0.573). In group 1 was significantly lower than the average value of the scale of AFR "Excessive prohibitions" (p=0.004) and higher "Preference in the child of children's qualities" (p=0.018) (compared with group 2). In group 1, a significantly smaller number of significant correlations between behavioral characteristics and parenting styles were revealed compared to group 2.

**Conclusions:** The profile of behavioral activity in patients with ASD differs from patients with MSDD predominance of anxiety, hypersensitive forms and specific autistic manifestations (stereotypes, rituals) and less pronounced hyperactive and oppositional forms; behavioral races are most correlated with sensory-cognitive and somatic manifestations of autism; in families of children with ASD is dominated by hyperprotection and a less pronounced tendency to prohibitions; probably, behavioral disorders in children with ASD are less dependent on the type of parental education.

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## SPECIFITY OF THE VERBAL EXPRESSION OF MENTAL AUTOMATISM SYNDROME

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**Background:** Manifestations of mental automatism in schizophrenia and delusional disorders are similar in appearance. The study of patients' statements may reveal the speech mechanisms of the pathogenesis of psychopathology. It is a practical tool for clinical examination (Mikirtumov BE, Ilichev AB, 2007).

**Tasks:** Identification of common semantic attributes (CSA) and thematic series (TS) of vocabulary, detection of correlations of the semantics of statements with the clinical manifestations of mental automatism syndrome.

**Subjects and methods:** 60 patients with schizophrenia were examined, aged from 18 to 63, 38 women, 22 men, mean age 36 years. 59 patients had paranoid form (F20.0), one - simple form (F20.6). PANSS average score 85.8. Inclusion criteria: typical manifestations of mental automatism and their description in speech. 381 statements were analyzed. Psychopathological research, Component analysis of vocabulary, Spearman rank correlation and General linear models were used.

**Results:** Six specific CSA were found. They divided the vocabulary into six TR: CSA "Intrusion" - TS "Alien", CSA "Activity" - TS "Influence", CSA "Deprivation" - TS "Alienation", CSA "Imposing" - TS "Being made", CSA "Alteration" - TS "Substitution", CSA "Takeover" - TS "Submission". At the next stage of the analysis, these CSA merged into the one CSA "Violence", and their vocabulary united into the general TR "Capture".

Clinical correlations of CSA of vocabulary were found (p<0.05). CSA "Intrusion" - thought broadcasting, verbal pseudohallucinations, echo of thoughts, thought insertion, delusion of possession. CSA "Activity" - delusion of influence. CSA "Deprivation" - withdrawal of thoughts, sperrung, depersonalization. CSA "Imposing" - "made" emotions, sensory automatism, visual pseudohallucinations. CSA "Alteration" - depersonalization. CSA "Takeover" - delusion of takeover, motor automatism.

**Conclusion:** Detected CSA are specific for the vocabulary of the mental automatism syndrome. They give the statements the pathological meaning of the violent capture of control of the person, deprivation of own will. Words acquire semantic identity and become signs of pathological change.

## THE CHARACTERISTICSOF INNER SPEECH IN CHILDREN AND ADULTS IN MODERN AGE

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**Background:** According to the concept of LS Vygotsky (1960), the inner speech of an adult is being formed in childhood from external social speech through interiorization.

Studying schizotypal disorder, we found that some patients in the premorbid period had unformed predicativeness, soundlessness or monologue characteristic of inner speech.

**Purpose:** To study the formation of inner speech in children and adults in modern life.

**Subjects and methods:** Three groups of healthy adults were examined: 284 students of medical university (82.75% of women, 17.25% of men, the average age of 22.5 years). 112 students of technical college (82.14% women, 17.86% men, average age 16.5 years). 171 people with higher education over 35 years (63.16% of women, 36.84% of men, average age 49.5 years). Inclusion criteria: native Russian language, lack of evidence for mental disorder.

Questionnaire about expansion (non-predicativeness), vocalization and dialogue characteristics of the thinking process in childhood, everyday life and in stressful events. T-criterion for independent samples.

**Results:** On childhood: the college students are least often pointed to the expansion inner speech in childhood, the older group most often noted vocalization. About everyday life: the older group is less likely toindicate the expansion and vocalization, college students have increased dialogue. On situations of stressful events: all groups indicated a high frequency of expansion. The older group least likely to have noted vocalization.

**Conclusion:** The change in the type of information in modern life has made more often a characteristic of vocalized inner speech -graphic information prevails over text. College students have difficulty in using reflection - the lowest rates of expansion in childhood indicate that it was more difficult for them to acquire thinking ability through pronouncing conclusions to themselves. They also may have a less stable integrity of self - frequent activation of ontogenetically earlier, dialogical form of thinking in everyday life.

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# PROSPECTS AND INTENDED GOALS OF PSYCHOTHERAPY FOR ANXIOUS AND DEPRESSIVE DISORDERS IN PATIENTS AT DISTANT STAGES OF BRAIN INJURY

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Introduction/Objectives: Patients with exogenous organic pathology of the brain have an increased vulnerability to psychotrauma and exogenous hazards in combination with the asthenic syndrome. In the long-term trauma, neurological symptoms usually subside, and psychological problems come to the fore. Sensitization to psychotrauma and exogenous hazards increases, adaptation and compensatory possibilities weaken. In the long-term trauma, neurological symptoms usually subside, and psychological problems come to the fore. The development of secondary depression due to awareness of patient's own inability to perform their usual activities, awareness of reduced life opportunities is possible. The combination of anxiety-depressive disorders and manifestations of distant brain damage greatly complicates the interaction between the doctor and the patient, and reduces the effectiveness of the therapeutic process.

This requires a special approach in the treatment of such patients. It was intended to study the possibilities of using psychotherapy in complex therapy of neurotic disorders that developed at remote stages of exogenous organic pathology of the brain.

**Subjects and methods:** A. Beck's depression scale, A. Beck's anxiety scale, SCL-90-R psychopathology scale, Wayne vegetative disturbance questionnaire, the scale of self-evaluation "State of health. Activity. Mood" were used for diagnosis.

Two groups of patients were examined: a control group (65 people), in which only standard psychopharmacotherapy was performed, and the main group (49 people), in which standard therapy was combined with complex psychotherapy. A specially developed program of psychotherapeutic correction was based on methods of cognitive-behavioral therapy, relaxation techniques, and was conducted in a group format.

**Results:** Patients suffering from anxiety-depressive disorders that occur against a background of moderate neurological disorders are characterized by clinical-psychopathological features, which aggravate the course of the disease. Statistically, in the integrated processing of the obtained data, there were considered complex statistical characteristics that describe the significance and relationship of the psychometric indicators. They can be combined into groups of signs: "tension in interaction with the society", "negative subjective assessment of the state", "anxiety". These factors were used in determining the strategy and targets of group psychotherapy.

In the main group, 87.8% of patients showed a decrease in anxiety and vegetative disorders after treatment, in contrast to the control group. Also depressive symptoms and explosiveness reducing, subjectively assessed well-being improving, activity increasing were noted. When examining patients after 1.5 years, the stable effect of the proposed therapeutic model was noted in 52.4% of cases in the main group and only in 38.2% of cases in the control group.

**Conclusions:** The detection of organic neurological disorders allows us to correctly identify the optimal therapeutic tactics, and significantly improve the effectiveness of treatment of neurotic disorders that occur against its background. There is a need to work with the reaction of the intact part of the psyche. The proposed combination of psychopharmacotherapy and psychotherapy was effective for relieving anxiety, depressive symptoms and vegetative disorders in patients with exogenous organic pathology of the brain.

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## COMPREHENSIVE ANALYSIS OF PROGESTERONE RECEPTORS DISTRIBUTION IN THE MOUSE BRAIN

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A growing body of evidence point that steroid hormone progesterone, in addition to its "canonical" reproductive functions, exerts different effects on the brain, such as neuroprotection and neuromodulation. Some of the progesterone effects that have recently attracted attention are anxiolytic and antidepressive effects, mitigating effect on euphoric response to psychostimulants as well as reduction of impulsive choice for opiates. These observations suggest that progesterone receptors, as a key mediators of progesterone action, could be involved in the pathogenesis of many psychiatric disorders. However, so far, the distribution of progesterone receptors in the brain has been poorly investigated and mostly limited to the hypothalamus and the limbic system.

In the present study we performed comprehensive analysis of the progesteron receptors distribution throughout the mouse brain parenchyma, using highly sensitive and specific Dako EnVision immunohistochemical system. We found abundant expression of progesteron receptors in neurons of frontal and parietal cortex, hippocampal CA1 region and dentate gyrus, thalamus and amygdala, which are all regions that can be dysfunctional in a variety of psychiatric entities. Our findings underline the need for further research on possible association between functional variants (polymorphisms) of progesterone receptors and psychiatric diseases.

This work has been fully supported by the University of Rijeka under the project uniri-biomed-18-187 1341 (Neuroprotective role of progesterone receptors).

## PRECISION AND PERSON-CENTERED MEDICINE IN PSYCHIATRY: TRANSDISCIPLINARY INTEGRATIVE PERSPECTIVE

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The concept of predictive, preventive, precision, person-centered and participatory medicine (5PMed) is a new emerging and formidable paradigm in psychiatry. Instead of relatively broad and non-valid pathological diagnoses and nonspecific "one-size-fits-all" therapies, psychiatry is moving toward an era of 5PMed that should offer the right treatment to the right patient in the right time. Transdisciplinary integrative approach due to computer science, infotech and biotech tries to create an overarching theory that unifies all the scientific and humanistic disciplines dealing with human mind, mental health and mental disorders. The idea is very attractive and challenging: to offer all mental health scientists and practitioners a common language, bridge over academic gaps and easily exchange insights across disciplinary borders. Theoretically, it is expected that is possible to combine clinical data with different neurobiological measures, single-nucleotide polymorphisms and epigenetic mechanisms in the different populations of patients in order to identify profiles that refers to and predict individual clinical response to individual or personalized treatment. Current psychiatric therapies are actually effective and useful for many patients, but there are still high rates of partial therapeutic response and treatment resistance. Personalized, precision and person-centered psychiatry are commonly used as synonyms, in spite the fact that these terms refer to the overlapping, but little distinctively different meanings and approaches. Personalized medicine considers clinical and personality characteristics of a patient in order to predict susceptibility to disease, aid in diagnosis, and tailor individualized treatment, precision medicine searches objective measures, biomarkers, endophenotypes or biosignatures, while person-centered medicine promotes a patient to be proactive as partner in the treatment choice and course. While we are waiting for establishing optimal 5P medicine in psychiatry and more personalized algorithms, it is possible to improve our clinical practice by using knowledge and therapeutic methods from different disciplines in creative and integrative way and practicing principles of the personcentered psychiatry.

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## CREATIVE PERSON-CENTERED PSYCHOPHARMACOTHERAPY OF DEPRESSION

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From time to time depression has been depicted as "one of the great scandals in medicine" because it is underdiagnosed, undertreated or wrongly and unsuccessfully treated disorder, while antidepressants are accused to be placebo with dangerous side-effects, "little more than a deceptive product of greedy pharma-ceutical companies that sell hope to the hopeless". The truth is that modern antidepressants are very useful and effective mental health medicine if used properly. What causes an optimal or good therapeutic outcome in psychopharmacotherapy of depression and how to achieve it is a fundamental question from the perspective of predictive, preventive, precise, personalized and person-centered medicine. Concept of creative, person-centered psychopharmacotherapy offers an overarching theoretical framework that permits the integration of different levels of explanation from neuroscience, clinical psychopharmacology, psychodynamics, evolutionary psychobiology and positive psychology in order to achieve full remission, personal recovery and positive mental health. It represents an art and practice of the learning organization in the frame of transdisciplinary, integrative, narrative, the person-centered and neuroscience based psychiatry and psychopharmacology. The key terms of this concept are: the focus on person in treatment instead of blockbuster and stratified medicine approaches, synergistic drug combinations, enhancing resilience and salutogenesis, not only decreasing illness but also increasing wellness, reconstructing disease and therapeutic narratives, and promoting creativity, therapeutic alliance and partnership. Each therapy is a learning process which involves systemic thinking, creative mental model, personal mastery, therapeutic vision and therapeutic dialogue. The more complicated treatment case, the more art and learning with the patient is needed for a successful therapeutic outcome. Creative psychopharmacotherapy is much more than prescribing mental health medicines in rational manner and careful control of their use. It is relational, contextual, multimodal, personalized and individualized application of the creative thinking and systemic information processing strategy. Creative psychopharmacotherapy includes not only creative and rational use of mental health medicines and their combinations, but it is also about creating favorable treatment context, re-constructing narratives that fuel mental health problems, resilience enhancing and fostering patients' creativity and personal mastery. It is an alternative to dogmatic, rigid and authoritarian application of official treatment guidelines and marketing based practice.

## BIO-PSYCHO-SOCIO-SPIRITUAL MODEL IN EDUCATIONAL INSTITUTIONS: POSSIBILITIES FROM SUICIDOLOGIST'S CONSIDERATION

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Despite hard efforts, the progress to decrease suicide mortality rates stays low. Up to date science can't predict suicidal behavior and decisively evaluate individual suicidal risk. The quest to find a solution and new methodology stimulates us to view suicidal behavior as a humanitarian problem. "Anyone can be at risk of suicide at any time," according to the American Association of Suicidology.

And because living people always have problems, AAS encourages active, long-term, everyday efforts for suicide prevention not only in clinicians, but in everybody, who influences society in aspects of upbringing, morals and spirituality.

Another strategy of suicide prevention requires cooperation of individuals and the whole society. A person at risk is the strongest resource in preventing suicide. As a rule, people don't want to die. They just don't want to live as they live at the present moment. The best suicide prevention is to make life better for all people. And our task as of mental health specialists is to enhance people's quality of life.

That's why the objective of Dialectical Behavior Therapy (DBT), of one of the modern approaches to suicidal behavior, is not to lower the rates of suicides and self-injuries, but to help each person to build a life, which they would like to live - a Life Worth Living. From the point of view of DBT, suicidal behavior is not a problem, but a solution, perceived as the only possible one, to deal with unbearable frustrations on the way to the desired goal. In order to broaden the range of choices, first of all one needs to learn emotional regulation. Sadly, up to date, unlike with physical health or intelligence, the patterns of psychic world have developed erratically; they were not viewed as a skill that could be purposefully and systematically taught.

The DBT approach, which is aimed to study the whole specter of skills of psychological self-regulation (emotion regulation, distress tolerance, mindful awareness, interpersonal effectiveness), is now effectively implemented into the work with patients, who previously has been considered hopeless. The foundation of the approach is the skill of specifically viewed mindfulness. It is a psychological process, which allows developing critical attitude toward various ideas and theories, allows choosing a favorable emotional reaction, which mediates behavior in response to actions from without. The mindfulness helps not only to view intellectual and emotional psychological hygiene anew, but teaches us to establish cooperative relationships, based on acceptance and responsibility. The psychological skill of mindfulness, which is formed in a special psycho-educational and psychotherapeutic situation, helps to bridge differences of biological, personal and social spheres. Practices of mindfulness teach to cooperate with all aspects of one's Self through regaining contact with one's bodily sensations and emotions. It is the skillful inclusion of the biological component that gives the flavor of life, which makes us immune against suicide.

Later on the basis of work with borderline patients the modifications of psychotherapy were created for cases, where suicidal behavior is less pronounced: depressions, drug and alcohol problems, bingeeating disorder, mood disorders. Today one of the criteria for DBT is the category "students".

It is vitally important for society to boost interest of young generation in their inner world. This may be realized through the primary sincere public interest in young people's opinions on all the aspects of life, which will soon become their future. Psychologists need to redirect technical potential of testing and screenings to establishing feedback practically with every growing person. Sadly, so far tests and screenings in the educational system are held in the form of expertise and are attuned to detect ill-being. The quantitative methods lead to implementation of norms, rates and hierarchies. This creates the spiritual atmosphere of threat, hostility and unfriendliness, which does not heal the society as a whole. The upshot is that the more we try to prevent suicides, the more chances are to provoke them. In order to use public resources more effectively, we need to drop the unproductive stating-testing position ("Is there a problem - or is there not?"). We need to take the position of mindful development in youth such inner psychological skills and such public conditions (mostly spiritual), which allow changing unproductive behavioral stress reaction to an adaptive one.

Of course, the formation of environment, where there is place for everyone, where suicides are less probable, make high demands to training psychologists and psychotherapists, as well as to their quantity.

Psychotherapeutic work with difficult cases in DBT proved to be dramatically more effective, when people from close circle of a patient were involved. For the young students their significant others are their peers, parents and even teachers. And they all want to be good friends, understanding parents and wise mentors, but they don't always know how to achieve it. And mastering skills of psychological settlement, formulated in DBT, is an excellent way to help them. In modern conditions parents stay as a

significant environment for their children for a long time - because of the emotional and financial dependency. Some countries already have the experience of parents organizing into the social movement, in which they teach each other psychological skills and abilities to interact with their kids in difficult situations. Teachers, who create the important context of study for youth, need to think of the similar organization.

The excellent help for the collective practices of new psychological skills and abilities is the emotionally rich physical activity (sport, dances, tourism), artistic and theatrical activity.

Surprisingly, but consistently, the skills of emotional, cognitive and behavioral regulation, taught in DBT, echo with transprofessional meta-skills (soft skills). They are not connected with a specific subject, but are closely intertwined with personal qualities and attitudes, with one's social skills, they depend on the skill to control oneself and influence others. Without it, the acquired professional knowledge can't be realized, for it is just instrument for work, where the eventual result supposes the skillful usage.

Teaching various population groups to live a good life with the help of psychological skills of emotional regulation is based on a unified human nature: to be emotional, thinking, vulnerable, to strive for a better life, but suffer sometimes. The process of such an education establishes conditions for mutual understanding, for creating new rules of communal living and even suits for a role of a national idea. Spirituality does not always have a religious meaning, but it is always about how to live together.

In 2018 the American Association of Suicidology asked media to tell more of hope and resilience, which could prevent more suicides. There is a lot of hope in a functional approach to behavior free of suicides and addictions - a behavior, which can be learned.

The economist and sociologist R. F. Inglehart speaks of a special mission of the period of early adulthood (18-25 years of age). It is the time of formation and shift of values. It is in this time that human assets of the nation are created and its culture is spread. Thus, what will become of the today's generation of students is precisely what in 15 years will become of the country. And today we may affect the tomorrow suicide rates - and decrease them.

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## NEUROPSYCHOLOGICAL APPROACH TO REHABILITATION IN PATIENTS WITH CEREBRAL DAMAGE

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**Introduction:** Neuropsychological rehabilitation is needed in case of disorders of higher mental functions (HMF) due to various brain diseases of traumatic, hypoxic, vascular, inflammatory, atrophic or neoplastic genesis.

The severity of HMF disorders is associated with many factors, including the volume and location of brain damage, the presence and duration of a coma and post-comatose unconscious state in the acute phase of brain trauma. A coma up to seven days' results in moderate disability or so-called complete recovery, whereas a longer coma increases the risk of severe disability. Even a one-to-two-day post-comatose unconscious state triples (17 to 56%) the risk of low-reversible cognitive disorders in the late period after TBI. Only 7% of patients having a post-comatose unconscious state for more than one month end up with moderate to mild cognitive disorders.

Neuropsychological rehabilitation should start as early as possible, ideally as soon as vital functions stabilise. The recovery is fast within the first five months after TBI and then it slows down significantly. New neural ensembles formed as a result of neurogenesis, are meant to increase the adaptivity in the changing conditions of the internal and external environment. Thus, in order to integrate new neurons into functional neural networks, the environment must be restructured as to get problem areas activated. Newly formed functions can appear only in a specially designed problem environment. However, neuropsychological rehabilitation has not been developed enough so far to provide evidence-based options and standards for this type of patient care.

**Goal:** Developing strategies for neuropsychological care in patients with cerebral damage at different stages of HMF recovery.

**Subjects and methods:** Based on the analysis of neuropsychological rehabilitation in 93 patients (57 with traumatic brain injuries, 36 with cerebral vascular disorders), the principles of a rehabilitation intervention to restore HMF were defined and further elaborated.

**Results:** It has been found that neuropsychological rehabilitation should start with an in-depth general assessment of the initial state, preferably an interdisciplinary one, and of the patient's level of HMF in particular. This enables to diagnose correctly the intact and damaged parts of mental activity, as well as to set aims and targets for rehabilitation. Neuropsychological diagnostics is based on such criteria as a neurodynamic potential, the degree of preservation of analyzer functions, the ability of voluntary movement, the degree of speech impairment, the level of voluntary control over mental activity.

The first stage of neuropsychological rehabilitation starts when the patient's state is stabilising, immediately after a coma or unconscious state. During this period, psychostimulotherapy techniques should be used, consisting of direct impacts of various modalities on the patient who emerges from a coma and demonstrates severe mental impairment. Then neuropsychological rehabilitation should mostly aim at the enriching the environment to create conditions for a differentiated response. This method lays the foundation for solving three main tasks: a) restoring the patient's past and knowledge gained by the time of illness; b) reviving mental skills and social behavior; c) restoring a voluntary initiative, a complex sequence of psychomotor activity. This approach takes into account a low level of consciousness in patients, and, on the other hand, their individual reactions, and also dynamically reveals foundation for a further rehabilitation. The neuropsychologist's work at this stage is aimed at restoring the patient's connection with one's bodily processes, processing afferent information, and also differentiating reactions to the stimuli of one's immediate environment.

The second stage begins with formally clear consciousness. At this stage, the rehabilitation work focuses on emphasising an active role of the patient, with sensory integration, psychomotor and vestibular training being the leading methods. These methods are aimed at increasing the integrative capacity of the brain needed to perform more and more complex tasks. Afferent and efferent centers should be consistently integrated in an effectively working network. Thus, the reintegration of separated functional systems is the main objective at this stage. The patient is actively engaged in a rehabilitation process, becoming an increasingly active participant.

The third stage of rehabilitation reintegrates acquired skills at the level of cognitive activity. The neuropsychologist moves on to the conventional cognitive training. At the same time, rehabilitation is aimed directly at the patient's speech impairment, memory, attention, perception, and deficient regulatory functions. It is important not only to restore all the functions, but also to reintegrate them into daily routine.

A suggested integrative approach to neuropsychological rehabilitation after organic brain damage, while promoting a better understanding of current and prospective tasks by specialists, has proved to be efficient in accelerating mental recovery, improving adaptive and compensatory abilities, and decreasing the depth of disability in patients.

**Conclusion:** Further accumulation of empirical data and understanding of experience in neuropsychological rehabilitation are needed to provide an efficient patient care, and also to develop its design and to do research within evidence-based medicine. Thus, scientifically and practically proven standards and options will be designed to correct different HMF disorders and mental activity in general.

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## PREVENTION AND MEDICAL REHABILITATION IN PSYCHIATRY

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**Introduction:** In recent decades, more and more importance is attached to research in the field of providing a favorable ecological environment in all spheres of life, including the education of moral values, providing a sparing psychological microclimate, health education of the population, the formation of a tolerant attitude towards people with mental disorders.

**Purpose:** Provide an overview of some areas of research conducted at the National Medical Research Centre for Psychiatry and Narcology n.a. V.P. Serbsky on the development of preventive and rehabilitation measures in the field of mental health.

**Methods:** Clinical and epidemiological, clinical and psychopathological, clinical and follow-up, experimental psychological, statistical.

**Results:** Organization of obstetric and gynecological care. The data of the state statistical monitoring of the health status of pregnant women and women in labor conducted in all subjects of the Russian Federation for the period from 1995 to 2015 are compared with the data of a comparative study of the

dynamics of indicators characterizing the primary morbidity and primary disability in mental disorders. It has been established that the processes of reducing the rates of primary morbidity with mental disorders and the dynamics of indicators characterizing the pathological course of pregnancy and childbirth in most federal districts occur synchronously or, more rarely, the latter are ahead of the first by 5-10 years. The results of the study confirm the hypothesis of the existence of a causal relationship between the state of health of pregnant women and women in labor, the state of mental health of their offspring and the state of mental health of the population as a whole.

**Ethnocultural factor:** The results of the analysis of the dynamics of the average values of the indicators of the primary incidence of all mental disorders indicate that in the Slavic population, these figures practically coincide with the national averages. No statistically significant differences were found when comparing national indicators and indicators for the Finno-Ugric group. Statistically significantly lower than the national average were indicators for the North Caucasus and for the unified Turkic and Mongolian groups of the population.

**lodine deficiency:** Measures of primary prevention of mental disorders (prevention of primary morbidity) should be aimed at reducing the impact of iodine deficiency existing in the region and the corresponding orientation of health authorities and the entire population of the region. The current view that iodine deficiency in the region often leads to the development of milder forms of mental disorders is consistent with the fact that the rate of decline in the primary incidence rate of non-psychotic mental disorders in Russia as a whole is much lower than in the North Caucasus and in the Republic of Dagestan.

Malignant neoplasms: Approved by orders of the Ministry of Health of the Russian Federation, the procedures for providing medical assistance separately for mental disorders and oncological diseases do not provide the creation of psychotherapeutic rooms in the structure of oncological dispensaries, which would allow, along with organizing multidisciplinary specialized care for patients, organizing of the specified register. In 70-80% of cases, mental disorders in malignant neoplasms, with the exception of mental disorders caused by direct brain damage, are caused psychogenically. At the individual level, between the primary incidence of malignant neoplasms and the primary incidence of mental disorders, according to numerous literature data, undoubtedly exists a chronological connection. However, in the process of statistical observation on a national or regional scale, this connection cannot be conclusively established due to the absence of a mandatory register of mental disorders detected in cancer patients.

**Non-chemical addiction:** The basis of the description of the clinical picture of dependence on a personal computer, the Internet and the means of access to it are taken by the general criteria of ICD-10, which describe the syndrome of dependence. According to ICD-10, a diagnosis is considered valid if there are at least three out of six common criteria during the year. Persons with non-chemical addiction have a desire to interact with the network or devices - a personal computer, tablet computer, mobile phone. Depression and phobic disorders, as well as factors affecting the aggressive social environment, in particular, families and schools, are considered the main object of primary prevention. Directions of prevention may vary significantly. A number of researchers consider the preservation of mental health as the key to success, others - the presence of social interaction skills, the third - the formation of intrafamily relations, the fourth - the skills of productive work with the Internet, the formation of a computer feeling "as a highly functional tool." As a result, the forms of preventive work are different. There are proposed prophylactic trainings, therapeutic and preventive psychotherapeutic programs, individual and group (mainly) programs of increasing tolerance to the stress effect of Internet factors as an addictive environment.

Gender peculiarities of decision making by psychiatric specialists. Women experts are distinguished by the adequacy of the description of situations with a lack of information, the adequacy of the proposed alternatives with sufficient information certainty and the social acceptability of the proposed options for the development of the situation with an excess of information. Male experts are distinguished by a detailed description of the situations with a sufficient amount of information, a large number of adequate alternatives for the development of situations with informational excess. Male experts are more pronounced in such a decision-making strategy as "vigilance" against female experts.

**Conclusion:** Studies in the field of prevention and rehabilitation held in the National Medical Research Centre for Psychiatry and Narcology n.a. V.P. Serbsky are aimed at developing measures that contribute to improving the level of mental health of the population, taking into account the influence of social, stressful, environmental and cultural factors.

## LEVEL OF IMPULSIVENESS IN FEMALE ADOLESCENTS WITH NON-SUICIDAL SELF-INJURY

#### Julia Khutoryanskaya, Vera Pozdnyak & Severin Grechanyi

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**Background:** Currently there is some data revealing a link between non-suicidal self-injury (NSSI) and disturbances of volitional control, frequently both are referred to single spectrum of psychopathological disturbances. However, level of impulsiveness may differ depending on the nosological group.

Aim: to determine level of impulsiveness, it's components in female adolescents with NSSI.

Subjects and methods: 26 female aged 13-23 years old (mean age - 18.62±0.512 years) being diagnosed: 12 patients (46.2%) - adjustment disorder, personality disorder, conduct disorder (F43.2, F07.0, F91), 10 patients (38č.5%) - schizophrenia, schizotypal disorder (F20, F21), 4 patients (15.4%) - eating disorder (bulimia type) (F50).

Adapted Russian versions of "Inventory of Statements about Self-injury", "Barrat Impulsiveness Scale" (BSI-11).

**Results:** Mean age of NSSI onset - 13.81±0.467 years. Types of NSSI: 12 patients (46.2%) - cutting, 3 patients (11.5%) - biting, 2 patients (7.7%) - hitting self, 4 patients (15.4%) - picking scabs, etc. Mean number of traces after cutting - 109.15±30.013. 17 patients (75.4%) experienced pain while inflicting self-harm, 7 patients (26.9%) - occasionally, 2 patients (7.7%) didn't experience pain. 23 young females (88.5%) inflicted self-harm being alone. BSI-11 total score for the entire sample of 70.08±2.423 indicates pathological level of impulsiveness. There was no quantitative difference in number of self-injuries, but patients from different nosological groups had different mechanism of inflicting self-injury. Significant Spearman's correlations between BSI-11 total score and motives of affective regulation ( $\rho$ =0.542) were identified in patients with adjustment disorders, personality disorders, conduct disorders. There was inverse correlation between motives of affective regulation and attentional factor of impulsiveness ( $\rho$ =0.420). Group of schizophrenia, schizotypal disorder demonstrated strong correlation between attentional factor and motives of affective regulation ( $\rho$ =0.749), between nonplanning factor of impulsiveness and motives of affective regulation ( $\rho$ =0.768). Impaired ability to plan own actions was higher in patients with schizophrenia, schizotypal disorder (22.90±0.983) compared to group with adjustment disorders, conduct disorders (20.29±0.828) (t=2.034, p=0.052).

Keywords: non-suicidal self-injury - impulsive behavior - impulsiveness - adolescents - young females

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## STUDY OF AFFECTIVE DISORDERS RELATED TO THE REPRODUCTIVE CYCLE IN ADOLESCENT GIRLS

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According to B.E. Mikirtumov (1996), depressive reactions are observed in 41% of girls with disorders of the reproductive cycle. Emotional reactions and conditions are quite clearly reflected in changes in the bioelectrical activity of the brain (according to the EEG).

The purpose of our study was to find out the features of the functional state of the brain (according to EEG) in adolescent girls with reproductive cycle disorders, depressive reactions compared with older women.

The study involved 200 girls with menstrual disorders at the age of  $15.47\pm1.44$  years. The study involved 20 women over 50 years of age (mean age  $56.6\pm3.9$ ) and 28 women under the age of 50 years (mean age  $33.9\pm9.1$ ) as comparison groups. EEG recording was performed on a Mitsar encephalograph, in a shielded room. Taking into account the combination of these criteria, we identified 5 types of the general EEG pattern of calm wakefulness in women and adolescent girls with menstrual disorders.

Data were obtained that showed a link between the type of EEG and the syndromal diagnosis in adolescent girls with menstrual disorders. According to the Beck scale, 21.5% of depressed adolescent girls were in our sample. On the Beck scale, women in the comparison group 50+ score on average more points and have more pronounced depressive states when compared with the first comparison group. EEG patterns in depressions associated with the reproductive cycle in women indicate an imbalance of the effects of the regulatory systems of the brain. The imbalance of the effects of the regulatory systems of the brain is likely caused by fluctuations and a partial decrease in estrogen levels.

Key words: adolescent girls - reproductive cycle - EEG patterns - depressive reactions

## BRIEF STRATEGIC THERAPY OF PANIC DISORDERS IN STUDENTS OF MOSCOW UNIVERSITIES

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**Introduction:** In a wide range of issues related to health care and improving the academic performance of students, a significant place is occupied by neuropsychiatric disorders, which might have a direct impact on education, social and personal life. This issue, in addition, has also an economic side: academic leaves, and, in particular, dropouts caused by the neuropsychiatric disorders - these can as well cause sometimes unnecessary expenditures of a university. The leading place among the neuropsychiatric disorder.

Relevance of this article is determined by the prevalence of panic disorders in the campus environment, the emerging trend towards the increase of disorders, the ability to quickly lead to social maladjustment (the threat of expulsion from the University, applying for academic leave), and the desire to get rid of this pathology in the shortest possible time, without the use of psychotropic drugs, taking into account the specifics of the situation, which is University attendance.

The aim of this study was to study the effectiveness of Brief Strategic Therapy approach in the treatment and social adaptation of students suffering from panic disorder.

**Subjects and methods:** The clinical material was sampled using International Statistical Classification of Diseases 10<sup>th</sup> Revision. This research is based on a clinical and psychopathological study of the dynamics of panic disorder in the use of brief strategic therapy in a group of 27 students (21 male and 6 female), aged 19 to 25 years with 3 year average duration of the disorder.

**Results:** The strategic approach in psychotherapy is a model of quick solution of individual and family problems, partnership problems in a wide context of interpersonal relations, depressive, anxiety-phobic, obsessive-compulsive, eating disorders and panic disorders. By the time of seeking help of a psychiatrist, patients have been self-medicating with the use of sedatives of herbal origin, using a variety of psychological and physical training. Psychotropic drugs were not taken. All patients were socially maladapted (due to skipping classes and academic underachievement some of them were to be excluded from the university or were preparing to apply for academic leave). The duration of the study was equal to the period of treatment and was 2 years. The number of therapeutic sessions ranged from 4 to 16 with a frequency of 1 every 2 weeks. To achieve a therapeutic effect in the treatment, a certain sequence of tactics and strategies was used, allowing the breakage of the pathological cognitive and operational systems of the patient. The therapeutic process consisted of a number of stages. The most important role in each of them belonged to the strategic interview with the patient. Stage 1: the first meeting and building of a therapeutic relationship: defining the problem; coordination of therapeutic intervention goals; conclusion of a therapeutic contract. Stage 2: defining the perceptive-reactive system that is supporting the disorder. Stage 3: builing the therapeutic intervention program and strategic changes. Stage 3: completion of the treatment. For each patient we developed different, individual versions of strategic protocols and models of intervention. As a rule, the episodes of panic became less intense by the beginning of the second stage. During the third stage, episodes of panic attacs were minimized, the emotional state improved, students continued their studies, passed exams. Despite the reduction of panic attack frequency in 6 patients (5 male and 1 female) remained prone to intrusive analysis of reality, reflection and low activity. These patients were prescribed outpatient drug therapy. One student had to be hospitalized in the Clinic of Neuroses. The remaining patients (74%) had completely stopped painful symptoms by the fourth stage, social adaptation was restored.

**Conclusions:** The use of brief strategic therapy in the treatment of panic disorder in students of Moscow universities has shown its high efficiency: in 74% of cases it was possible to achieve complete treatment of the clinic of panic disorder, restoration of social adaptation (study), avoid hospitalization and prescription of psychotropic drugs. Brief Strategic Therapy is preferable, because it does not reduce the cognitive functions of students, does not require even a temporary termination in studies. It should also be noted the efficiency of treatment by strategic therapy, which distinguishes it from other treatments.

# THE PECULIARITIES OF CORRELATION OF THE SEVERITY OF SOMATO-ENDOCRIN DISORDERS AND OBSESSIVE-PHOBIC SYMPTOMS IN EATING DISORDERS (ANOREXIA NERVOSA AND BULIMIA NERVOSA)

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**Background:** Eating disorders, in particular anorexia nervosa and bulimia nervosa, are accompanied by varying degrees of severity of somato-endocrine disorders, which are closely related to obsessive-phobic symptoms observed in almost all patients.

Aim: to trace the interaction (correlation) of obsessive-phobic and somatic-endocrine disorders in anorexia nervosa and bulimia nervosa.

**Subjects and methods:** 400 patients with anorexia nervosa and bulimia nervosa from 12 to 42 years were examined. The duration of the disorder ranged from 4 months to 20 years. There were 133 (33.2%) patients with anorexia nervosa and 267 (66.8%) patients with bulimia nervosa. In nine cases, catamnesis was 20 years. It was carried out in the form of outpatient observation or during repeated hospitalizations. From five patients, information was obtained when they asked for help about the eating disorder in their daughters.

Obsessive-phobic symptoms were investigated using clinical-psychopathological, clinical-catamnestic, clinical-statistical and clinical-psychological methods. A standard examination was used to identify concomitant somato-endocrine disorders. If necessary, additional studies (computed tomography, magnetic resonance imaging) were carried out.

**Results:** In the preparatory (prepubescent) phase of menarche against the background of intensive growth of the body, obsessive-phobic symptoms in the form of dysmorphophobia were detected in 53 (13.25%) patients. At this stage, intrusive experiences often related to the height, rarely to weight or "ugliness". Further puberty with hormonal changes, leading to the development of secondary sexual characteristics and the formation of femininity (breast augmentation, roundness of the hips and waistline, body hair growth) provoked the appearance or strengthening of previous dysmorphophobic experiences, obsessive ideas, fears associated with appearance and body shape. The final stage of this process, menarche, as a rule, was negatively perceived by patients as the main reason for changing the shape of the body and "chubbiness". At this point, obsessive-phobic symptoms associated with appearance are detected in 70-80% of patients with anorexia nervosa, and 30-40 % - with bulimia nervosa.

At the stage of correction, the nature of somato-endocrine disorders directly depended on the method of weight loss. The loss of 15-25% of body weight from the age norm (if the decrease was rapid, then already with the loss of 10%), overcoming the weight threshold of menstruation, individual for each patient, led to cessation thereof. Since then, weight loss has accelerated, increased somato-endocrine disorders characteristic of dystrophy.

At the stage of cachexia or severe bulimic symptoms with massive vomiting behavior, severe somaticendocrine complications were observed, which were reflected both in the nature and severity of the manifestation of obsessive-phobic disorders. The plot of obsessions varied in the cachectic patients (weight loss of more than 50%): in the food-related and appearance-related obsessions such as the fear of food, pain after taking even a very small amount of food, constipation, lost control over eating, weight gain etc. remained the most frequent. In particular, appearance at this stage of obsessions not related to the food theme, such as the desire for symmetry, order, massive often pretentious compulsive disorders up to stereotyping (as is typical for patients with evident bulimic disorders) attracted our academic interest.

At the stage of reduction of painful symptoms and exit from cachexia, it takes sometimes more than a year to restore menstrual function, provided that the weight increases above the weight threshold of menstruation by 1-3 kg. Before the restoration of menstruation cycle, mental state remains fragile, with periodic updates dismorphophobia-dismorphomania symptoms, explosive disorder, and tendency to hysterical reactions. With the positive dynamics of the treatment, normalization of endocrine and somatic parameters, we can also see the reduction of obsessive-phobic symptoms.

**Conclusions:** In the vast majority of cases, obsessive-phobic symptoms are an obligate manifestation of anorexia nervosa and bulimia nervosa. Obsessive-phobic disorders associated with nutrition and physical appearance are closely related to the nature and dynamics of the somatic-endocrine component of anorexia nervosa and bulimia nervosa.

# THE USE OF MEDICAL XENON INHALATIONS IN THE TREATMENT OF SOMATOFORM DISORDERS, MAINLY WITH CARDIAC MANIFESTATIONS

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**Introduction:** patients with somatoform disorders with cardiac manifestations are classified as diagnostically "difficult patients "due to the significant" blurring" of both the clinical picture and clinical criteria for diagnosing the disease (F 45.3 according to ICD-10). A significant number of patients with this diagnosis are constantly observed in specialists of various profiles, the average duration of the disease-3 years, undergo numerous examinations, however, approaches to the treatment of this pathology are not developed enough.

**Subjects and methods:** *Object of the study:* 50 patients, from 18 to 70 years of age, both sexes, who were treated in the Scientific and practical psychoneurological center named after Z.P. Soloviev and Institute of mental health and addictology. The patients underwent the necessary additional clinical and laboratory tests to exclude organic pathology. The main method of research: clinical-psychopathological Scale (Clinical Global Impression Scale - CGI). Statistical processing was carried out using the software package Statistica 10.0 and Microsoft Office Excel.

**Results:** Patients were divided into 2 groups of 25 people (n=25). The age of patients averaging (42.24 $\pm$ 14.05) years. The first group included patients receiving standard pharmacotherapy. In the second - combination therapy: standard pharmacotherapy with medical xenon. Inhalations of the xenon-oxygen mixture were carried out in a ratio of 20/80 to 35/65 with a step of 5%. The total number of sessions 5-6. The first 3 sessions were held every day, followed by 2 days. Analysis of the results of the CGI Scale showed that the method of combined therapy with the addition of xenon inhalations showed a significantly greater effect compared to group 1 ("pronounced effect"). Signs of positive dynamics were noted after the third procedure. A more significant effect was observed in patients of a younger age group (from 18 to 30 years; p<0.01) with individual and personal characteristics of anxiety and sensitive types.

**Conclusions:** the Inclusion in the structure of standard pharmacotherapy of patients with somatoform disorders, mainly with cardiac manifestations, medical xenon significantly increases its effectiveness, especially noticeable in the group of patients from 18 to 30 years with a predominance of anxiety sensitive personality accentuation.

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## PSYCHOLOGICAL ASSISTANCE AFTER CEREBRAL CATASTROPHES

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Against the fantastic success of neurosurgery and neuroreanimatology, not only in saving lives, but also in preserving the functionality of people after cerebral catastrophes (thanks to a jump in high technologies), the success of neurorehabilitation looks much more modest. Despite the use of the latest advances in neuroscience, computerization of rehabilitation treatment, expanding range of pharmacotherapy, transcranial interventions, adaptive devices, despite attempts to introduce evidence-based medicine, thousands of patients are turned off from life due to various forms of impaired consciousness.

The purpose of this work is to substantiate the role of psychological assistance to patients with impaired consciousness, starting from the earliest stage after removing the main cause of the disease.

Restoration of mental activity after cerebral catastrophes needs not only in a concept based on a holistic view of a person, but also a special organization of common activity. In accordance with principles of anthropocentric rehabilitation approach, the opposition of physical and psychological components should be avoided during all the way of the patient. Methodologically this means that the restoration and correction of all patient manifestations, including mental activity, requires joint efforts by representatives of different disciplines, focused both on psychopathological consequences of brain diseases, and on impaired control of vital functions, as well as on motor one's deficiencies.

Psychologists and psychotherapists should apply interventions aimed at restoring mental activity within the framework of their own professional tasks; at the same time, they are agents of a complex system that includes the patient. The rehabilitation team develops at all stages of treatment, guided by the general goals of restoring (integration) consciousness, movements, speech, behavior, according to certain rules of interaction with all other participants of the treatment process.

It was previously assumed that psychological assistance is carried out only in cases with clear consciousness and elementary verbal communication, so the most severe categories of neurosurgical and neurological damages were excluded. However, now the idea of psychological rehabilitation's start-up is changing. Research in the field of physical rehabilitation has demonstrated a link between the time of the start of rehabilitation and the functional outcome: early physical rehabilitation reduces the final deficit and forms successful adaptive compensations. The same principles apply to the integration of a person's mental life. Accordingly, psychological work must begin with preparing a patient for surgery and continue at the earliest postoperative stage, when the patient is in intensive care unit with functional deficiencies and / or impaired consciousness.

The goal of psychological assistance is to build a "dialogue" with the patient, expanding his abilities to contact with himself and the outside world. Theoretically and methodologically, this work is grounded on Process-oriented approach (A. Mindell), as well as on Biosynthesis (D. Boadella), one of numerous areas of Body-oriented psychotherapy. Due to the training and practical use of these approaches, equally focused on feedback phenomenon, in the 90s of the last century in Burdenko Neurosurgical Institute urgent psychological neurorehabilitation did appear. The effectiveness of such work is difficult to prove due to the variety of therapeutic interventions at this stage, the lack of measuring complex, terminological uncertainty of consciousness. Numerous data appearing over past 20 years (fMRI, EEG) about possibility to communicate with some patients, estimated as vegetative (unreactive wakefulness) may be considered as indirect evidence.

The most important condition for effective psychological assistance to patients with impaired consciousness is transition to teamwork.

Transdisciplinary neurorehabilitation team is a group of specialists united by a common goal setting based on the needs of the patient at a certain time period. The goal is determined by the joint discussion of a particular patient, each participant goes to it using their own tools. The action vector within profession frames joins the general vector of efforts. A coordinated "force field" of directionality is being formed; a single strategy for patient advancement is being created.

This approach, firstly, makes the psychologist (as well as from any other specialist) to coordinate with other team members. Secondly, the strategy of goal setting stems not only from an understanding of the patient's deficit structure and determining his level of consciousness, but also the zone of his closest development, as well as ensuring his safety.

The strategy of goal setting poses numerous tasks for psychologists, determined by many factors: nosology, duration of primary disease, level of consciousness, concomitant somatic diseases and complications, the structure of cognitive and motor deficit, premorbid social and personal features. The following methodological principles correspond to problems solution:

- The principle of human existence integrity (wholeness): a person is a unity of three dimensions somatic, mental and spiritual (noetic), each one is associated with a certain vitality and dynamics. Compliance with the principle of integrity helps the psychologist to see the deficit structure more fully and choose interventions based on patient resources.
- *The principle of individualization* helps the psychologist to deviate from the schemes and the protocols, to take into account each individual patient with peculiarities of his inner world, motivation and values, attitudes and positions.
- The principle of dialogue suggests that psychologist/psychotherapist creates information exchange with the patient, his family, with other team members; he is in internal dialogue with himself, with his bodily sensations, feelings, thoughts, and images. He focuses on patient feedback signals when builds interventions. This principle allows responding immediately to all the events of patient's life in the clinic.
- *Partnership principle:* psychological rehabilitation requires maximum patient participation in recovery activities. This requires: openness of information exchange about the disease and treatment, when discussing the emerging difficulties; understanding motivation of the patient and his relatives; creating a safe space where the patient would have "the right to vote" on an equal basis with others.

The patient's equal, active participation in rehabilitation process opens up to him the meaning of his experience, and in addition to recovery-compensation for impaired functions, gives him the opportunity to part with many illusions and feel his own unique role in the real world.

Teamwork requires participants to possess not only professional skills, but also meta-skills, such as leadership, cohesion, decision-making, etc. The concept of the team as complex non-linear system, with energy, entropy, stability, ability to self-organization as main characteristics, changes the vision of the process qualitatively, and also creates the possibility of quantitative monitoring.

**Conclusion:** The tool of anthropocentric approach is a rehabilitation team that ensures patient safety and respect. The team is successful in restoring consciousness due to flexible feedback system, free exchange of information, and correction of interventions in accordance with new hypotheses. In this context, psychological assistance is the main means of forming "team-patient" system.

# PSYCHOLOGICAL FEATURES AND CHARACTERISTICS OF SOCIO-PSYCHOLOGICAL ADAPTATION IN INTERNET-ADDICTED AND MIXED ADDICTED (VIDEO GAME-ONLINE AND SMOKING MIXTURES) ADOLESCENTS

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**Background:** The aim of the study is determined by the prevalence of different types of addictive behavior among adolescents. As long as addiction to smoking mixtures is already known in science, new types of addictions still appear, in particular Internet addiction. In a number the similarity of psychological properties and conditions as formation risk of various forms of addictions: anxiety, depression symptoms, emotional instability, increased excitability, attention deficit hyperactive disorder (ADHD), other neuropsychological disorders. In another studies, due to characterological features of Internet-addicted adolescents and adolescents dependent on surfactants, were also revealed significant differences in their psychological properties and social adaptation. At the same time, it should be noted that the comparative features of psychological properties and social adaptation of adolescents with mixed forms of addiction - Internet addiction, combined with substance addiction-have not been studied.

The aim of the study is to determine psychological features and socio-psychological adaptation in adolescents with substance addiction, Internet addiction and a mixed form of addiction (Internet + surfactant).

**Subjects and methods:** A comparative study of psychological features of adolescents with Internet addiction (n=20), adolescents surfactant addiction (Smoking mixtures), adolescents with mixed addiction (Internet+smoking mixtures), n=18 and also adolescents without signs of addiction (n=17).

Test of Internet addiction Chen (scale CIAS); IVDO Lichko; Test of socio-psychological adaptation of K. Rogers and R. Diamond; Index of Life Style (ed. Wasserman); Indicator Coping Strategies (adapt. Orphan, Yalta); Barrat impulsiveness Scale; temperament and character Cloninger Questionnaire (TCI-125).

**Results:** Certain similar psychological features of addicted adolescents are revealed: increased motor impulsivity, as well as low self-control, reduced self-esteem, emotional dependence, lack of clear life goals, which generally reflects their immaturity. Internet-addicted adolescents have increased anxiety, passivity - subordination, a high level of motor and cognitive impulsivity, emotional discomfort in combination with underdeveloped emotional intelligence and communication abilities, socio-psychological maladaptivity. For adolescents, substance and Internet -addicted individuals is characterized by such personality traits as novelty search, the tendency to harm avoidance. In the groups addicted adolescents there is a significantly greater severity in all characterological radicals in comparison with the control group. In mixed group (surfactant + Internet) revealed lability, asthenic-neurotic, that may indicate emotional instability. In the group of substance-addicted individuals noted asthenic-neurotic, introversion, emotional instability. In both groups, the prevalence several mechanisms of psychological protection (regression, suppression, substitution and compensation) is noted.

The harm of social and psychological adaptation in adolescents with surfactants and Internet addiction, have a number of specific characteristics: high level of escapism, emotional discomfort and social maladaptation. In turn, surfactants-addicted adolescents have several specific characteristics: lower tendency to cooperate, less used strategy of finding social support.

**Conclusions:** Psychological features of adolescents with mixed (Internet+surfactant) addiction and substance-dependent individuals are close to each other. However, substance-addicted adolescence shows higher level of impulsivity, search for novelty and level of transcendence, compared with poly-addicted adolescents, which has certain impact to socio-psychological adaptation. Highest level of socio-psychological adaptation was identified among healthy adolescents and substance-addicted individuals. And significant lower in adolescents with poly-addiction (Internet+surfactant) and the lowest among Internet-dependent adolescents. The data obtained as a result of the study need further study on a more representative sample of adolescents.

# TREATMENT SATISFACTION AND ITS FACTORS AMONG PETIENTS WITH AFFECTIVE AND DEPRESSIVE DISORDERS (LITERATURE REVIEW AND ANALYSIS OF METHODOLOGY OF STUDYING)

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According to scientific literature treatment satisfaction results better compliance, increases the frequency of repeated visits, expressing positive customer feedbacks and decreases expenses of both clinics and patients. Basket of factors of satisfaction depends on level of medical service facility (outpatient/ inpatient/ emergency), specifics of medical subspecialty and facility. Our studies have revealed that both structure and weight of factors of patient satisfaction vary on 1) moment of conducting the study (when comparing factors of satisfaction of recurrent patients with previous treatment at hospitalization versus current treatment at discharge) and 2) patients' treatment experience (when comparing factors of satisfaction of patients at first hospitalization versus recurrent patients at discharge). Therefore, the important question is "When should we study factors of treatment satisfaction?" There are 3 main variants of study of revealing factors of treatment satisfaction depending on period of time after discharge (at discharge, 2 months after discharge, at readmission) - each of them is characterized with advantages, disadvantages and options (such as preferable methodology of fieldworks, response rate, answer` accuracy and rate, and predict different types of patients' consumption behavior. According so scientific literature and the results of our studies other important methodological aspects of conducting studies in field of factors of patients' satisfaction include: methodology of finding out the key factors of satisfaction (direct questions, correlation, SEVQUAL methodology), preferable method of statistical analysis (Student test, Spearmen rank correlation, Multiple linear regression, Factorial analysis, SEVQUAL methodology); studying of extent to which patients are satisfied with specific characteristics of medical facility (Mean and Standard deviation or Top-2); benchmarking (which is the only way to estimate if factors' importance is enough, over evaluated or under evaluated); adjustability of factors of satisfaction (should the number of factors be limited with adjustable factors only or we should include on adjustable factors unto questionnaire); usage of standard questionnaire (which would allow is to compare our studies to studies of other authors) Vs ad-hoc questionnaires (which includes wide range of factors fitting best the goals of current study); inclusion of open-ended questions into questionnaire (which allows to get the information not included into standard factors - such as something patients were surprised with disgusted with - that is something patients share each other with enthusiasm); conducting of fieldworks (by medical facility staff o independent emergency staff; methodology of data collecting - Paper and Pen, Internet survey, Telephone interviews); regularity of conducting of studies which allows evaluate both efficiency of interventions and shift in importance of factors of satisfaction (which is an quintessence of Deming Cycle: Plan - Do - Check - Act).

Key words: patient satisfaction - research design - methodology

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# SELF-MEDICATION DURING PRE-ADMISSION PERIOD AND ITS FACTORS AMONG INPATIENTS WITH DEPRESSIVE AND NEUROTIC DISORDERS

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**Objectives:** Self-mediation is widespread among patients with depressive and anxiety disorders. Most of studies describe drug and alcohol abuse among patients. Only few researches describe self-medication and its factors.

**Aim:** To study self-medication and its factors among patients with depressive and neurotic disorders during preadmission period Material The sample included 131 first-time admission inpatients and 85 rehospitalized inpatients with depressive or neurotic disorders, who mentioned that they were taking medication to cope their symptoms during preadmission period. Men age was 43.8±12.7 year), Half of patients were suffering from mixed anxiety and depressive disorder, 15% were hypochondriac, 12% experienced panic disorder. The combined share of depressive and recurrent depressive disorder was 26%.

**Methods:** Lazarus coping strategies test, Shmishek personality test, test on disease attitude and patient activation were used. Social and demographic characteristics, disease effects at patients' life, medical literacy and behavioral coping strategies were studied as factors of self-medication. In total effect of 167 factors at probability of self-medication were analyzed.

**Results:** Over 50% of first-time admission and rehospitalized inpatients use self-medication to cope their symptoms during preadmission period. Coping anxiety and insomnia is a key motivation to self-medication. Most frequently consumed medications included barbiturate - over 30% in each sample (which can be bought without prescription) and benzodiazepine tranquilizers and herbal anxiolytics and antidepressive therapy (13% Vs 2%, p=0.0008), in contrast first admission patients were using more frequently herbal anxiolitiscs (38% Vs 21% in rehospitalied patients, p=0.009) Misunderstanding of origin of their state, searching for information about treatment of disease up the Internet, increased emotiveness and tension and lack of their correction with psychotherapy are the factors of self-medication.

**Conclusion:** To prevent self-medication at preadmission period in recurrent inpatients psychic ducation and teaching to psychotherapeutic techniques of coping anxiety are needed. To prevent self-medication in first onset inpatients informing them of origin, symptoms and treatment of depressive and neurotic disorders through internet can be used.

Key words: self-medication - depression - anxiety - multifactorial model

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## THE NEED FOR A MULTIDISCIPLINARY APPROACH AND INDIVIDUAL SCOPE IN FOCUS

#### Jasminka Matic, Azijada Srkalovic-Imsiragic & Anto Kreso

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Introduction/Objectives: As there were several methods in practice commonly used in treatment of patients with alcohol dependencies (known as patients with high comorbidity and several mental disorders), there are common expectations about multidisciplinary approach as the best way to treat these patient. This article is also dealing with the second, very important need- the need for detailed insight in patient's specific somatic(biological), psychological, and social status, system of beliefs, working habits, motivation, expectation, responsibility built within the family, referral group and common society. Individual approach includes use of specific knowledge about patient, impression taken at screening, but also during regular treatment what improve possibility for best individual approach and implementation of adaptive training, new learning what brings functionality and practice, and implementation strategies with idea to support individual to learn skills that may help patient to adapt to specific requests after being treated at Department for treatment of alcoholism and /or within Daily hospital.

Experiences taken in daily work with patients are described and summarized and serve as a starting point for short overview and efforts for implementation of specific programs that meets the needs of patients and daily practice. Treatment should be beneficial for patient, make him/her much stronger, but also functional and able to cope with daily requirements.

**Subjects and methods:** Descriptive method; summary of activities performed with 20 patients within the treatment for patients treated at the Department for alcohol and other dependencies in Hospital Popovača/ Daily Hospital for alcohol dependencies -working at two locations(city Popovača and city Sisak/-is to be provided; include different methods that activate need for learning, adoption of new sights, adaptation, education process, learning about group and in the group, individual experience , training in self-presentation and self-esteem, emotions expression, sharing and taking emotions, building trust and criticism, group spirit, interest for others, mirror experience, copying, taking responsibilities, playing roles, talking about planned steps when leaving safe "treatment area" and treatment period etc.

**Results**: Qualitative data summarized for several patients and families are considered as positive feedback and support idea to use similar methods for future practice and patients improvement; results motivate professional team to continue to use multidisciplinary approach and individually centered methods with focus and awareness on patients specific characteristics and needs.

**Conclusions:** Results support use of psycho-bio-social model and underline importance of sharing all important data within multidisciplinary team with continued efforts for further investigation how to improve individual plan and treatment in accordance with patient's specific needs. These efforts are with a purpose to enable patient to achieve best adaptation in accordance to family, work and social requests from one side, and feel good, self-confident, relaxed, motivated and accepted, from other side. From social and health- insurer-s level, it is also very important to keep stable remission and make individual strong within local community, also included in different support groups (including groups as strong support for treated alcoholics) trying to avoid return to the hospital within short timeframe. These efforts may be productive if relevant instances are cooperating closely and as active support while planning and organizing these activities. Active politics on country level may do much more here.

## PSYCHO-ONCOLOGY AND SPIRITUALITY. MULTIDISCIPLINARY APPROACH TO THE TREATMENT OF MALIGNANT DISEASE

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Contemporary medicine should be based on a multidisciplinary approach that is personalized and that encompasses all human dimension (rational, mental and spiritual) in order to make the treatment process successful. Being diagnosed with a malignant disease poses a threat to the integrity of the afflicted person, and at that point, almost all previously successful ways of coping with stress cease to function. The psychological precursors of cancer include stressful experiences, depression and personality traits. Stress weakens the body's defense powers (endocrine and immune system), which in turn can lead to malignant illness. In our culture, emotional responses to the disease are considered less important compared to the physical health although today numerous cases and studies confirm that emotional resolvement leads to the relaxation of the whole organism which has a significantly effect on treatment and recovery from the disease. In the treatment process it is important to take care of mental health, i.e. emotional response to the illness, and depending on the severity of symptoms to involve a psychiatrist or a psychotherapist. A successful treatment of malignant disease cannot be achieved without active participation of the patient who has to accept the disease and empower himself/herself to ease the healing process and to learn how to live with malignant disease. Spirituality plays an important role in this process as serious illnesses change the dynamics of the life one has known so far. The change can be a chance for spiritual growth which is often neglected by the modern way of life. The path of spiritual growth is individual and in accordance with the interests and preferences of the person and aims at taking control over one's emotional reactions to the illness, facilitates dealing with and overcoming the issues brought on by the diseases. Clinical studies confirm that spirituality and religiosity can reduce the occurrence of anxiety and depression in patients with malignant disease. Highly expressed religiosity measured as the power of religious beliefs proved to be important with the lower emergence of depression in female patients with breast cancer.

Psycho-Oncology is a multidisciplinary approach and the modern medicine increasingly recognizes the role of spirituality in treatment and recovery.

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## SPIRITUALITY AND RELIGION AS AN AGENT OF RECOVERY IN PATIENTS WITH DEPRESSION AND ANXIETY

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Spirituality has been found to be an important component in the recovery of severe mental illness. During the past two decades, researches has connected spirituality to a variety of benefits, including increased hope, well-being, self-esteem, social supports, motivation towards growth, as well as decreased depression, anxiety, and substance abuse. Studies show that religion and spirituality are associated with decreased rates of mental illness, but the association between religion, spirituality and mental illness are still understudied. So this study of 31 patients with depression and 31 patients with anxiety disorders, have examined the influence of the support of the spiritual guide and the support of the psychotherapist. The study design used semi-structured open-ended interview about who attended or not a 'spirituality guide' together with psychotherapy and their individual subjective feelings of mental wellness through that social support. Data shows that those who reported use of spiritual guide and psychotherapy generally have more positive individual's subjective feelings of mental wellness. Accessing a spiritual support together with psychotherapy may be useful within mental health recovery from the view point of those in receipt of it. Spirituality can be viewed as a vital dimension of holistic practice and person-centered care, as a form of stress reduction, and mindfulness cognitive therapy. The clinicians who are aware of the common themes among the faith and religious believes and can understand the patient's belief system are better prepared to address more appropriate, in crisis situations.

# PRACTICAL EXPERIENCE IN THE SYSTEM OF SINGLE-SOURCE FINANCING OF SPECIALIZED PSYCHIATRIC MEDICAL FACILITIES OF THE MOSCOW REGION

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Constant increase in health care costs associated with the emergence of new medical technologies and methods of treatment, changes in the structure of morbidity and demographic problems are the urgent problems for health care institutions. To address the imbalance between available treatment options and limited economic capacity, healthcare systems are increasingly focusing on the effectiveness and cost of care.

Population of the Moscow Region is growing from year to year. The largest population growth was recorded in 2012, when 295 thousand people were appeared for the year, then, since 2013, the population growth has stabilized and amounted to about 9-10 % per year. Over five years, population of the Moscow Region has increased by more than half a million people and amounted to 7.3 million people. Child population in 2016 amounted to 1.3 million children, and for five years increased by 246 thousand.

Efficiency of the healthcare system is measured by the set of indicators, either of which describes a certain aspect of the process of medical activities, the most important trend in the development of the healthcare system is to shift the priority from maximum cost savings in provision of medical care to maximum efficiency of involved resources utilization. In relation to healthcare, there are three types of effectiveness: social, medical, economic one. Clinical, laboratory, socio-economic research methods were used.

Creation of the single-source system of financing the activities of medical facilities is aimed at creating a competitive market for medical services, motivating medical facilities and medical employees to strengthen the preventive focus of the work, improving the quality of services and the intensity of treatment, reducing costs, optimizing the structure and staff. Ultimately, this is aimed at improving the quality of health services and efficiency of healthcare resources utilization.

But at the same time, psychiatry is the specialized discipline, where patient care is provided by means of knowledge and qualification of a physician, so, differentiation of services is conditional in this case and, accordingly, it would be more logical to use other methods of financing, which were used in budget financing.

In contrast to budget financing when funds were sent to healthcare facilities from district and regional budgets, the single-source funding system assumes that the main portion of funds received by an institution comes from the Moscow Regional Territorial Obligatory Health Insurance Fund. Funding is provided in accordance with the approved tariffs and scope of medical care approved by the Tariff Commission of the Ministry of Healthcare of the Moscow Region; insurance cases in a hospital, medical services rendered to citizens are paid by health insurance Fund. It should be noted that according to Part 7 of Art. 35 of Law No. 326- $\Phi$ 3 a tariff structure to pay for medical care includes all expenses of an institution due to medical care (the costs of medicines, food acquired, salaries, equipment, transport and utilities, etc.). Thus, the tariff takes into account all expenses of a facility caused by medical care provided.

The analysis of the statistical data characterizing the activities of the psychiatric service allowed to allocate certain regularities in development of a psychiatric situation in the area. If we compare the impact of changes in funding on the statistical indicators of the service, it should be noted that in the study period there is certain stabilization of the situation. So, the proportion of patients registered since 2013 till 2016 has not changed, but the structure of registered patients is changed due to the first visits of patients with the prenosological follow-up types, respectively, there is 1.3-increase in the number of newly diagnosed patients (from 615 persons in 2013 to 804 persons in 2016). In general, the number of patients under consulting follow-up increased by 1.08, and under case follow-up decreased by 0.9.

Given the above, we may make conclusions and identify positive and negative sides of transition to predominantly single-source financing.

The method of comparative evaluation of the healthcare system effectiveness used in maintaining registers of patients under Obligatory Medical Insurance allows to demonstrate the results of work at the level of institutions and individual territories by calculating quantitative indicators characterizing the effectiveness of medical care.

At the same time, through the systematization of data, it is possible to effectively use an extensive database of annual statistical and management reporting, and, on this basis, quickly identify negative trends in the work of the entire healthcare system searching for reserves for improvement. This requires development of a methodology for assessing effectiveness of the healthcare system based on medical and economic standards of medical care for psychiatric patients using automated information systems to make effective management decisions regarding effectiveness of utilization of labour and material resources, spending budget funds.

# FEATURES VISUAL AND AUDITORY GNOSIS OF YOUNGER SCHOOLCHILDREN WITH SPECIFIC DISORDERS OF THE DEVELOPMENT OF SCHOOL SKILLS

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Gnosis traditionally refers to the fundamental mental processes that characterize cognitive activity, including its components such as mental performance, characteristics of fatigue and inter-hemispheric asymmetry, directly related to the stability and switchability of active attention. Specific impairments to the development of school skills in this work are understood primarily as dysdexia, dysgraphia, and dyscalculia, including their mixed forms.

The purpose of our study was to study the characteristics of the auditory and visual perception in children of primary school age with mental development disorders characterized by specific disorders of school skills.

The study involved 19 children without learning disabilities 8-10 years old and 26 children aged 8-10 years with psychological developmental disorders (F81, ICD10).

The indicators of visual attention (by the method of the Correction test, modified by the VM Bekhterev Scientific Research Institute), auditory attention (by the Dichotal test method), and attention asymmetry (M. Annette's questionnaire) were subjected to a comparative analysis.

Analysis of the data obtained showed. The indicators of attention asymmetry are not related to the presence of specific school skills disorders in primary school age children. The features of children with the presence of specific violations of school skills should include the lack of visual attention functions. Children of primary school age, regardless of the presence or absence of specific disorders of school skills, show signs of functional insufficiency of the structures of the right hemisphere, which dominates in the processes of visual-spatial perception in right-handers. The obtained indicators of the processes of auditory and visual perception make it possible to individualize the approach to each particular child in order to correct the difficulties arising in the process of learning. The data obtained indicate the relationship between the indicators of the asymmetry of perception of visual stimuli and the quality of this perception with the indicators of the asymmetry of the auditory perception.

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# COMPLEX CORRECTION OF DYSMORPHOPHOBIA IN PATIENTS WITH EATING DISORDERS

### Elena Okonishnikova, Igor Belokrylov, Galina Kirsanova & Semen Semikov

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Introduction: The main symptoms of eating disorders (ED) are the result of a passionate desire to achieve harmony and an irresistible fear of fullness, despite extreme exhaustion in the case of anorexia nervosa, and extreme measures to compensate for overeating in bulimia nervosa. Anorexia nervosa (AN) and bulimia nervosa (BN) occupy one of the first places of the threat of death among all mental disorders, are difficult to treat, tend to chronic course, lead to social maladjustment, disability and have a high suicide risk. Psychopathological basis of anorexia nervosa and bulimia nervosa is a dysmorphic disorder or painful dissatisfaction with their own appearance, or a fear of excessive development, disfiguring the body, the completeness, that determines the strong desire of patients to correct their appearance and weight loss, up to cachexia. Dysmorphic experiences can have the character of anxiety and obsessive fears, dominant ideas, reaching the level of excess, when the desire for weight loss persists despite a significant decrease in body weight and the appearance of secondary somatoendocrine disorders, or delusional, with the addition of pathological ideas of attitude, of particular importance, when the conviction of excessive completeness cannot even partial logical correction. Most often, dysmorphic disorder is associated with the size or shape of the thighs, shins, buttocks, stomach and waist dissatisfaction, as well as the nature and degree of deposition of adipose tissue in these parts of the body. Dysmorphic experiences can affect the face - cheeks, nose, eye shape, skin quality, hair color and length, size and shape of the breast. In this case we talk about multiple dissatisfaction with their own appearance or polydysmorphophobia. Currently, there is a decrease in the age threshold of people's attention to their appearance and from 8-9 years in girls, and sometimes boys, there is concern about their weight and figure, practiced dietetic behavior and intense physical activity, and in adolescence this desire to lose weight persists and even increases. Also, there is a tendency to shift the age boundaries of the manifestation AN and BN towards an increase and we see signs of the onset of the disease in adult women, often already entered the menopausal period, that is, there is a fact of sustained dissatisfaction with their bodies in women throughout their lives, which indicates the risk of developing ED at any age.

Subjects and methods: Treatment of patients with AN and BN long and time-consuming process associated with the involvement of a team of specialists - psychiatrists, psychologists, nutrition consultants, somatic doctors, secondary and junior medical personnel. The complex method of treatment, including modern medical (psychotropic and somatotropic) therapy, individual programs of nutrition restoration, various types of psychotherapy and long-term medical and social rehabilitation, has proved its effectiveness. Therapeutic measures are aimed at correcting dissatisfaction with their own appearance, are selected individually for each patient, it depends on the severity and persistence of dysmorphic symptoms. Psychotropic drugs are not absolutely necessary, but can be useful for relief of depression, anxiety, obsessive-compulsive symptoms, manifestations of impulsivity, super-valuable or delusional nature of dysmorphophobia. As effective well proven antidepressants are fluoxetine, fluvoxamine, sertraline, paroxetine, escitalopram, mirtazapine, clomipramine. When choosing neuroleptics, it is better to give preference to atypical, that not only favorably affect the distorted perception of their own appearance, but also differently act on weight gain: olanzapine has the best effect, risperidone and quetiapine weaker, and aripiprazole and ziprazidone do not affect weight gain. Therefore, their appointment should take into account the actual body mass index of patients. Psychotherapy and the therapeutic relationship are key in achieving cooperation, as patients are initially evaluated psychotherapy as threatening intervention. The success of psychotherapy depends on a prudent combination of therapist perseverance and empathy, which is especially important because patients with ED are extremely sensitive to criticism and disapproval. To increase motivation for recovery and adherence to treatment, the method of motivational interviewing is effective, which also helps to reduce dysfunctional concern with one's figure and, in the long term, leads to an increase in selfesteem. Cognitive behavioral therapy (CBT), adapted by Fairburn for these patients, consists of cognitive procedures aimed at correcting incorrect thinking settings to develop more constructive coping skills with negative emotions and behavioral activities designed to form a habit of eating regularly, the use of exposure to include in the diet of avoided food. The purpose of CBT - correction of maladaptive thinking and misconceptions about nutrition, shape and body weight, cognitive restructuring of dysfunctional beliefs associated with dissatisfaction with their own appearance. Interpersonal psychotherapy (IPT) focuses on aspects of interpersonal relationships and teaches adaptive methods of regulation of interpersonal conflicts that can cause ED. After the course of treatment, IPT is also effective, as well as CBT in reducing the intensity of restrictive behavior, reducing the frequency of episodes of overeating and cleansing, mitigating the severity of dysmorphic symptoms and in forming self-esteem, not related to body weight and its form. Body-oriented therapy helps to obtain a new body experience and development of distortions in the perception of one's own body, the formation of a neutral or even positive attitude to it. Family based therapy helps to establish a supportive domestic borders, leads to a reduction of the role of the patient in the parent and family differences, reduces the significance of behavior of the family and patient concerning the etiology and pathogenesis of the disease, and helps family members to exercise more effective for the successful treatment of the interaction with each other and the patient to become more independent and self-reliant. Developed and have already proven the effectiveness of the protocols of methods so-called third wave of CBT for the treatment of ED dialectical behavioral therapy, acceptance and commitment therapy, and compassion focus therapy.

**Conclusions:** It should be remembered that even with a favorable outcome of anorexia nervosa and bulimia nervosa, some patients may have clinical signs of disorder for a long time, concerning excessive anxiety about the figure, body weight and food preferences, and the risk of exacerbations persists for many years after the formal end of therapy. For preventive purposes, it is important to focus on timely and mandatory treatment for psychotherapeutic help if the patient's previously acquired skills of adaptive response to the comments of others regarding appearance and body weight weaken, and the degree of concern about weight and body shape increases and patients do not cope with it on their own.

## DREAM - PRESENTING CONFLICT ISSUE IN RELIGUOS YOUNG GIRL

### Mirjana Orban & Marija Kušan Jukić

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The dream is unique psychodinamically informative instrument used to facilitate an understanding of psychopathology, personality structure, psychodynamics as well as psychotherapeutic process. From the psychodynamically functional viewpoint dreams can be classified as presenting conflict issue, impending crisis, psychodynamic-diagnostic, affective state, self-representational, relational-transferential, resistant-defensive, and problem-solving, decision-making dreams. The explanations of dreams are active processes of free association and symbol recognition that include collaboration of therapist and patients in achieving mutual understanding of the dream. The central psychodynamic formulation may be embolden in patients dream as it is in our case example.

A 23-year old girl come to therapist because of insomnia and repetitive dream (every night for the last year) of big fat snake appearing on the edge of her bed. She has been regularly awaked, screamed, turned the all lights in house on and awaked her parents, grandfather and two sisters. She is the middle of the three sisters, with regular early psychomotor development, finished primary and high school, now a student of the fifth year of the faculty for primary school teacher. Her family is paternal, very religious. She is in an emotional relationship for a year with a boy from her Christian community of young people and they made mutual understandings about do not have premarital sexual relations.

At the first meeting, it was evident that there is no other serious psychological symptoms besides anxiety accompanying the conflict presented persistently though the dream of snake that symbolize the phallus. Clarification of the conflict issue brought to conscious level made it possible to the client to reconsider her determination about "pre-marital purity" through the brief psychodynamic orientated psychotherapy. After the clarification of symbol appearing in dream, she stopped dreaming the snake, and decided to talk with her boyfriend about their relationship.

Key words: dream - conflict - psychodinamic formulation - clarification

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## **RECOVERY INDICATORS IN OPIATE ADDICTION TREATMENT**

### Mirjana Orban, Danica Romac, Boris Gracin & Zrinka Ćavar

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**Introduction:** Opiate addiction is a complex condition with serious consequences and requires long-term, personalized and integrated care. Multidisciplinary and therapeutic approach aimed at recovery and measuring by indicators are the key to improve the outcomes of opiate addiction treatment.

**Objective:** To measure the outcomes of outpatient medical assisted treatment of opiate addiction and the quality of addicts' life during five years through recovery indicators.

**Methods:** The results are based on data collected from WHOQOL-BREF questionnaire, Pompidou questionnaire, urine analysis and measured by the expert consensus document which includes areas of individual response (retention, abstinence, stable relationships), harm reduction (risk behavior and crime) and involvement in the society (employment). Diagnosis is based on the ICD-10 criteria. Retrospective review of the five-year opiate addiction treatment outcomes in the Department for Mental Health and Addiction Prevention.

**Results:** The results indicate positive and stable recovery trends. We can observe high retention rate in the treatment, good results on the personal recovery plan and employment, stable partner relationships and social inclusion.

Data shows good opiate abstinence rate. There were no new HIV positive persons also few number of new HCV positive. Quality of life (on all four domains - physical health, psychological health, social relations, and environment) was statistically significantly higher for patients who are married or in a domestic partnership than the patients who are single or divorced.

**Conclusion:** These results indicate that we achieved good outcomes in the opiate addiction treatment which also provide benefits not only for individuals but families and the community as well. Having access to good quality mental health care may facilitate recovery and it is important to provide quality, evidence-based treatment.

Keywords: opiate addiction - recovery - treatment - quality of life

# **RISKS OF AFFECTIVE PATHOLOGY DIAGNOSTICS IN HIV-INFECTED PATIENTS**

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**Background:** Affective pathology in HIV-infected patients, including hypomanic and manic states, can significantly increase the risk of HIV infection because of a risk-taking sexual behavior as well as impulsivity and use of psychoactive substances. The risk of bipolar affective disorder in patients with HIV infection is 50% higher than in uninfected individuals of a similar social status.

However, despite high prevalence of affective pathology among HIV-infected patients, depressive and hypomanic as well as manic states are commonly misdiagnosed and treated. Early identification of hypomanic states represents one of the most urgent health problems since many patients do not consider the conditions as abnormal. Nowadays screening methods of diagnostics, contributing to earlier identification of hypomanic states are commonly used in medical practice.

The aim of the study was to assess potentials of screening psychodiagnostic methods to identify the risks of affective pathology of the bipolar spectrum in HIV-infected patients with risk-taking behavior manifested in psychoactive substance abuse (PAS) and a tendency to have multiple sexual contacts.

Subjects and methods: The study of medical history data and screening psychodiagnostics in HIVpositive individuals were carried out with involvement of volunteer participants who had signed a written informed consent. The study was performed on the basis of "Smolensk Center for AIDS Prevention" and involved 36 participants aged  $32.3\pm5.9$ . To assess the risks of affective pathology development, the following methods were used: Bipolar Spectrum Diagnostic Scale (BSDS; Pies 2005); Mood Disorders Questionnaire (MDQ; Hirschfeld 2000); Diagnostic Questionnaire on Bipolar Disorder (Hypomania Checklist (HCL-32); J. Angst 2005), validated in Russia by C. Mosolov (2014). Case history data were used to study the propensity to risk-taking behaviors manifested in multiple sexual contacts and the use of psychoactive substances. Statistical data processing included methods of descriptive statistics. Sample characteristics were given as +standard error of the mean. The construction of the confidence interval (CI) was carried out according to the formula for fractions and frequencies (the Wald's method). The reliability of the differences between the studied features was evaluated with the F-test. The statistical validity of the assessed parameters was recognized at >95% probability (p<0.05). Statistical analysis of the results was performed with Microsoft Excel 16 "Data Analysis" application. All experimental and clinical procedures were performed in full accordance with international ethical requirements for research.

**Results:** Study of HIV-infected patients medical history data disclosed that by the time of the study, all respondents had been taking psychoactive substances (100%; CI:100.0), primarily alcohol (63.3%; 54.4-72.1), alcohol was used predominantly by males (40%; 31.1-48.9) compared to 23.3%; CI:15.5-31.1 in women. Heroin took the second rank among psychoactive substances (13.3%; 1-19.5) with predominance in females (10%; CI: 4.5-15.5 compared to 3.3%; CI: 0.1-6.6 in males). The particular focus of the study was use of alcohol jointly with heroin, methamphetamine, and desomorphine.

Assessment of sexual activity at the time of the study in HIV-infected patients disclosed that the majority of patients had had sexual intercourse with 3-5 partners (40%; CI: 31.1-48.9). By the time of the study 24.7% participants had had from 5to 10 sexual partners, with predominance in men (23.3%; CI; 15.6-31.1 compared to 10.0%; CI: 4.5-15.5 in women.

Assessment of the risk of bipolar disorder with the MDQ scale failed to reveal any excess of the screening threshold:  $4\pm0.6$ ; CI: 3.3-5.6 in males,  $2.9\pm0.4$ ; CI: 2.2-3.7 in females. Also, the average values on the BSDS scale did not exceed the thresholds and showed no signs of bipolar disorder ( $5.4\pm0.6$ ; CI: 4.2-6.6 in males and  $4.7\pm0.4$ ; CI: 3.9-5.5 in females). As for the average values on the HCL-32 scale, they did not exceed the normal rates as well ( $6.4\pm0.5$ ; CI:5.5-7.4 in males and  $6.4\pm0.7$ ; C: 5.1-7.7 in females).

**Conclusions:** Despite the identified signs of risk-taking behaviors, manifested in multiple sexual contacts together with psychoactive substances, the screening methods mentioned above failed to identify signs of hypomania in the clinical sample. These results of screening diagnostics might be associated with the lack of subjective assessment of the emotional status in patients because of an underlying disease, complicated by psychoactive substance abuse, as well as antiretroviral therapy. The increase in the number of individuals involved into the study, along with investigation of cognitive characteristics in HIV-infected patients can contribute to a more objective assessment of their emotional status especially using screening scales to identify the affective pathology at early stages.

# ACCURATE DIAGNOSTICS OF SCHIZOPHRENIA

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Schizophrenia is a progressive endogenous illness leading to a loss of psychic functions unity, Specific thinking disorders such as autism, resonance thinking, symbolism, «blockade of ideas» et cetera.

It is followed by reduction and fading of adequate emotional reactions («emotional immobility» found by Bleuler) and increasing weakening of spontaneous activity reaching perceptible abulia at the final stage of disease. The history of clinical psychiatry development represented in classic works of B. Morel (1860), E. Kraepelin (1896), E. Bleuler (1911) and others let us point out the main (obligate, accurate) and additional (optional) symptoms of disease. Basic symptoms are obligatory for accurate diagnostics of schizophrenia as they always take place in case of this disease. They include:

- Thinking disorders (blockade of ideas, or «Sperrung»); affluence of ideas, intersecting ideas, pulling away of ideas, slipping of ideas, autistic thinking (autism) with prevalence of affective thinking over logical thinking (including ambivalence and ambitance), «agglutination» of thinking, Gedankenlaut and others.
- Emotional disorders which E. Bleuler determined by the term «Steiffe affektivitat» or immobility of emotions. Clinical presentations of such pathology are loss of subtle emotions, sympathy, commise-ration, compassion. More severe manifestations are emotional blunting, non-adequate reactions, paradoxical reactions and in final stage complete absence of emotional reactions (apathy). This sign of schizophrenia was marked more distinctly earlier by E. Kraepelin (1896).

Later J. Berze (1914) underlined significance of this symptom which he marked by the term «primary lack of psychical activity», «hypophrenia». It is very important, especially for differential diagnosis with schizoid psychopathy and other kinds of psychopathy. Additional optional) symptoms are not pathognomonic for this disease and include the whole specter of productive disorders (neurosis-like, paranoiac, hallucinatory, delusional, catatonic and others). E. Bleuler included in «the group of Schizophrenia» its «latent» forms so that in future it lead to unjustified widening of the borders of this illness, and so called «mild forms» were determined, or other term - sluggish Schizophrenia.

But not in E. Bleuler scientific articles, nor in A.V. Snezhnevskiy scientific works there are no clinical examples and descriptions of such cases.

The question of the Schizophrenia unjustified widening diagnostics is very actual till nowadays because the diagnosis of sluggish Schizophrenia is often enough in medical practice and it is not always reliable if the main symptoms described in the article are absent, because they are the ones obligatory for accurate diagnostics.

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# SPEECH AND LANGUAGE DISORDERS - TRANSNOSOLOGICAL SYNDROMES IN PERVASIVEDEVELOPMENTAL DISORDERS IN CHILDREN

#### Vera Pozdnyak

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**Background:** Speech delay may be the first symptom of various disorders: developmental disorders of speech and language, pervasive developmental disorders (PDD), mixed specific developmental disorders. Aim: to analyze clinical dynamics of verbal communication disturbances and to determine specific qualitative features of speech and language disturbances in PDD.

**Subjects and methods:** 620 young children aged 2-3 years old were clinically & psychopathologically examined, 180 of them had one common symptom - speech delay, they were divided in 3 groups: PDD (N=18, 12 males, 6 females), mixed specific developmental disorders (N=41, 27 males, 14 females), specific language impairment (N=121, 71 males, 50 females). The questionnaire about the features of expressive and receptive language abilities was used.

**Results:** There is an increased incidence of speech delay in population of young children aged 2-3 years old from 11.5% in 2010 to 30.2% in 2018. The next features showed statistical significance: understanding the semantic component of speech is lower in children with PDD (x<sup>2</sup>=57.238, p<0.0001), children with PDD

avoid verbal contact more often, have specific reactions to nonverbal sound stimuli, have peculiar intonation and echolalia more often ( $x^2=32.331$ , p<0.0001). Children with specific language impairment and mixed specific developmental disorders use gesture equivalents of utterances more actively, their sayings relate to a concrete subject more often ( $x^2=86.689$ , p<0.0001). There was no statistically significant difference in the course of pregnancy, number of pregnancies, acute respiratory infections during pregnancy, in the parents' understanding of cry intonations on the preverbal stage of development.

**Discussion:** Children with PDD firstly show disinterest in communication that manifests itself in intolerance, avoidance of verbal communication, then they develop communication disturbances and specific repetitive behavior. Children with mixed specific developmental disorders and specific language impairment show unformed means of verbal communication, actively use gestures, emotional component of communication.

**Keywords:** pervasive developmental disorders - speech delay - speechand language disorders - specific developmental disorders

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# ANALYSIS OF THE ADAPTATION AND DISADAPTATION OF MIGRANTS

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The special feature of migration processes in the sample of migrant workers is of a network nature when considering socio-ethnic community: most migrant workers are connected by related, family-clan, settlement relations established in the homeland. This kind of community is characterized by a strict hierarchy. According to the migrants themselves, the lower the qualification, educational level, know-ledge of the Russian language, the more the migrant depends on his or her ethnic community to solve any social problems.

The bulk of migrant workers are people with secondary and secondary vocational education, so in the country of migration they can apply for working specialties and perform low-paid low-skilled jobs. The opposite is true of migrant compatriots. As a rule, these are people with higher education, but the professions they are forced to engage in the Russian Federation are also not always highly qualified (workers, employees).

Migrant workers tend to perform completely impersonal, mechanical and repetitive support jobs (often seasonal and temporary), which have some stigma: dangerous, rigid and dirty, i.e. their vocational adaptation is disrupted. The combination of the social situation that arises with employment and the state of ambivalence that can be explained as "life between two countries," when migrants do not actually participate in public life, causes a sense of exclusion.

Migrants are trapped in a situation of social anomaly where the norms, values and sociocultural codes of the country of origin are not valid and relevant in the new context. At the same time, the new cultural values of the host country cannot be accepted because of their unusual, alien nature. The sense of loss of cultural values, the fear of getting confused or lost in the context of migration form a kind of vacuum in which society does not exercise control over migrants. Often migrant workers experience frustration, powerlessness due to language barriers and discrimination.

This state of anomie and social exclusion has a negative effect on the health of the migrant, which makes them vulnerable to various somatic health problems and mental disorders. Some studies confirm a high level of anxiety-depressive and other mental disorders in the group of migrants. The situation is aggravated by the inability to seek professional help as a result of the language barrier, the lack of development of a migrant assistance service, and the lack of an integrated system-integrated approach to their support.

In the current impasse and seemingly hopeless situation, migrants find support and solidarity among their reference groups - peers, family, friends from the surrounding community (Tajik, Uzbek, Kazakh, etc.). Confidence of a migrant that he will be able to receive the support of his reference association generates well-being and psychological comfort for migrants living in conditions of uncertainty in the host society.

# QUESTIONNAIRE "RELATION TO PSYCHOTHERAPY" AND DEVELOPMENT OF AN INCLUSIVE MODEL OF PSYCHODIAGNOSTICS FOR WORKING WITH DEPRESSIONS IN THE CLINIC OF CRISIS STATES

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In recent years, one of the main trends in advisory and psychotherapeutic practice has been research of motivation in the practice of psychological and psychotherapeutic assistance - the most important variable, determining both the content of this process and its effectiveness. The continuing interest in this topic is due in part to the fact that the for subject matter of the study is not only difficult to select the relevant methods and interpret results, but it is also a big deal to determine the subject of the study itself.

The undertaken research is mainly of an applied nature and is aimed at exploring models of inclusive psychodiagnostics based on methods embedded in the natural tissue of therapeutic contact. One of the most important tasks for us is to minimize the stigmatization of the patient's image by the role of the "object of study" and bring not only psychocorrection, but psychodiagnostics too - closer, if possible, to the real format of cooperation and joint creation of new reality. Therefore, the theoretical basis of the study was built in a bit unconventional way, not as a result of theoretical generalizations and conceptualizations of the psychotherapist about the accumulated experience of his work, alone, as he see it. We chose conceptualizations of our patients themselves about the psychotherapeutic assistance as the object of study and material for primary contact in therapy, inviting him as an amateur expert estimating therapeutical values. The challenge was to work with living reality of the representations of the patient, not with the re-constructed conditional reality presented through the prism of academic theories.

The study was conducted during 2015-2018. in several stages. At the first stage, there was collecting of spontaneous statements of patients on the topic "Psychotherapy: Pros and Cons." At the second stage, a questionnaire was formed on the basis of the most frequently encountered spontaneous statements on the topic "Psychotherapy: Pros and Cons", meaningfully significant for the practical work. A pilot study was conducted in a Crisis Hospital and in 2 control groups: graduate students and practicing psychotherapist psychologists. As a result of approbation, a set of 12+12 questions was formed, with the most simplified technology of conducting and a general procedure was developed. Approbation of the questionnaire "12 pro - 12 contra" convincingly showed its informativeness and effectiveness as a means of facilitation for the easy and safe self-disclosure of a patient in the first phase of therapeutic contact; as an inclusive diagnostic tool to study the motivation of the respondent, the reconstruction of his current ideas about the nature and methods of psychotherapy; as an express way of working with the anamnesis data most in demand in the first phase of therapy.

The survey is perceived as a simple, fairly safe and creative task, which looks like a sort of sociological study, in which the respondent acts as an amateur expert. Talks about the meaning of psychotherapeutic care and its place in solving actual problems become a kind of mediator for a clinical interview structured by these questions, during which important details of personal experience, uniqueness of the request for help and motivation for psychotherapy are easily actualized.

The "co-expert" approach at the start of a therapeutic contact ensures a sufficiently protected position for the respondent and make him more free in self-expression. Self-disclosure does not occur through personal confessions, but through the evaluation of experience, including not necessarily deeply personal. Discussing in the humanitarian key the advantages and disadvantages of the proposed or former psychotherapeutic intervention, its place in solving current problems, the patient spontaneously chooses the most personally meaningful from the general context. The "pro-contra design" of the questionnaire forms presets for working with ambivalent experience content, enhances in patient his tolerance to the problems of complex existential choices and can provide transformations from the hard experiencing of the inner life duality content - into a peculiar form of special discourse, and this, in particular, can often have its own psychotherapeutic effect.

As a result of the analysis of 83 questionnaires received from patients of our Clinic, statistically significant gender differences were revealed in relation to psychotherapy and conceptualizations about the practice of assistance. Also, at a statistically significant level, differences were found in the groups of "experienced" respondents, in contrast to those with no psychotherapeutic experience. The practice of re-questioning showed the substantial possibilities of this method as a means of assessing the effectiveness of the therapy. It is obvious that with the accumulation of big statistic data, the questionnaire will have the potential for further standardization and application in therapeutic practice. In addition to narrowly-applied practical goals, the results of the survey on large samples can also be used as a means of collecting data for statistical study of characteristics of queries and motivation for psychotherapy in large populations, including cross-cultural studies.

# TREATMENT RESISTENT SYMPTOMS OF PTSD

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**Introduction:** Posttraumatic stress disorder (PTSD) is a delayed or prolonged response to a stress situation, which is of catastrophic nature and endangers the physical integrity, as well as the dynamic psychosocial balance. PTSD is a frequent and often under-recognized disorder and that is why it was a real challenge to perform this study.

**Aim:** The aim of the study was to emphasize the clinical symptoms and enhance the recognition of PTSD in clinical practice. Second aim of the study was to measure a percentage of treatment resistant symptoms of PTSD.

**Subjects and methods:** This was a prospective clinical study; the subjects were followed for a period of 6 months. There were 41 patients included in the survey, all of them males, aged from 23 to 50 years and they all took active part in a war conflict. Three clusters of symptoms were analyzed, as classified by ICD-10 classification.

**Results:** The most frequently observed symptoms, found in 77% of patients, were symptoms from the third cluster, and from this cluster the most frequent symptoms have been sleeping problems - insomnia (90%), irritability or angry outbursts (80%) and increased startle response (74%). These were followed by symptoms from the first cluster in 65% of patients, with the most frequently observed persistent nightmares (90%) and recollections and thoughts related to the event (85%).

**Conclusions:** Based on these results, we can conclude that PTSD is characterized by versatile symptoms influenced by the individual biological and psychosocial distinctiveness, as well as the characteristics and severity of the stress. Significant percentage of the symptoms were treatment resistant.

Keywords: PTSD - symptoms - clinical practice

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# THE ACTUAL ASPECTS OF COMPLEX SCALE APPLYING FOR TREATMENT RESULT EVALUATION IN PATIENTS WITH PARANOID SCHIZOPHRENIA

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**Background:** Despite the large amount of scales based on various criteria of assessment there is no single generally accepted tool for assessing the result of patients with paranoid schizophrenia treatment, determining the severity of their mental state.

The goal of the research was to develop and apply a comprehensive assessment of the treatment outcome based on the indicators of the traditionally used scales for dynamic observation and prediction of the treatment outcomes for patients with paranoid schizophrenia.

**Subjects and methods:** 420 patients with paranoid schizophrenia were examined. The patients were treated in Regional clinical psychiatric hospital of St. Sophia, Saratov psychoneurological dispensary and Balakovo psychoneurological dispensary since 2011 till 2017. Among them 195 (46.4%) female and 225 (53.6%) male. The patients' average age was from 18 to 63 years old, composable at gender groups and made 37.2±2.1 for women and 38.1±2.3 for men. All patients (n=420) were divided into groups according to the duration of the disorder: I (n=196) - the patients with first psychotic episode (FPE), II (n=224) - the patients with the duration of paranoid schizophrenia five years and more. According to the type of treatment each group was divided into two subgroups: IT (n=64), IA (n=35), IIT (n=30) and IIA (n=62). IT and IIT subgroups received typical neuroleptics; IA and IIA subgroups were treated by atypical neuroleptics. In each subgroup there were patients receiving psychosocial rehabilitation: ITR (n=35), IAR (n=62), IITR (n=64), IIAR (n=68) and patients receiving therapy without rehabilitation (comparative groups): IT, IA, IIT, IIA. The research was based on the examining of stationary and out-stationary cases, applying of productive and negative symptoms scale examination (PANSS); psychodiagnostic scales of social and cognitive functions determining: «Hinting Task» and «Ekman's faces»; the assessment scale for life quality and social functioning evaluation; «The scale of compliance by Morisky-Green».

The psychorehabilitation methods were individual compliance therapy, psychoeducational work with patients and their relatives using short psychosocial brief psychosocial intervention sessions (BPI), «A guide for schizophrenic patients and their relatives» performed by the researcher, and computerized Wechsler Test cognitive training.

**Results:** The author divided three degrees of patients with paranoid schizophrenia mental state for complex assessment treatment results in research groups: «unsatisfactory», «satisfactory», «good» (Table 1).

Scale	Mental state (points)		
	«Insufficient» «1»	«Satisfactory» «2»	«Good» «3»
SF and QoL scale result; 1-4 (10 indicators)	10-20	21-29	30-40
PANSS P; 49-7	49-35	34-20	19-7
PANSS N; 49-7	49-35	34-20	19-7
PANSS G; 112-16	112-80	79-48	47-16
Morisky-Green; 0-4	0	1-2	3-4
«Hinting Task»; 0-24	0-8	9-17	18-24
«Ekman's faces»; 0-14	0-4	5-9	10-14
Total point	220-183	182-147	146-112
The point of complex treatment result scale	7-11	12-16	17-21

#### Table 1. Schizophrenic patients' mental state evaluation

The correlation analysis showed the presence of direct close relationship between the quantitative indicators of the patient's condition for each indicator of the QoL and SF scale with the scores for complex scale for treatment result evaluation (CSTR) in the studied groups at stages I and IV (r from 0.78 to 0.86). During the research close rectilinear correlations of patients in the studied groups with the results of the CSTR confirming the patients' mental state objective assessment according to the QOL and SF scale in dynamics (r from 0.76 to 0.89).

The significant and close correlations between the condition of patients on the PANSS scale and the result of patients' treatment of the studied groups by CSRT were revealed. This fact indicates that the more significantly the clinical symptoms decrease, the higher is the result of treatment (r from -0.52 to - 0.83). Correlation analysis confirms the improvement in the treatment outcome on comprehensive assessment scale with a decrease in clinical symptoms on the PANSS scale.

The correlation analysis indicated close direct links between the emotional intelligence indicators of patients in the studied groups and the results of treatment on a comprehensive assessment scale (r ranges from 0.76 to 0.89), which confirms the improvement in the results of treatment on a comprehensive assessment scale with increasing emotional intelligence using the «Ekman's Faces».

Significant and close correlations of a straight line orientation between social intelligence indicators in the research groups were obtained with treatment outcome indicators on a comprehensive assessment scale, r ranges from 0.72 to 0.87, which proves an objective assessment of this indicator on the «Hinting Task» scale.

Significant and close correlations of the straight direction between the indicators of compliance in the studied groups were obtained with the results of treatment on a comprehensive assessment scale, r ranges from 0.62 to 0.82, which confirms the improvement in treatment results according to the author's integrated assessment scale.

When conducting a regression analysis, a formula was obtained to determine the severity of the mental state according to indicators of scales (formula):

TR = 1.431 + 0.334 Q&S - 0.15 P + 0.079 N + 0.1 G + 0.205 EF + 0.091 MG + 0.082 HTwhere: TR - Treatment result;

QoL and SF - life quality and social functioning;

P - productive symptoms of PANSS scale; N – negative symptoms of PANSS scale; G – general symptoms of PANSS scale; EF - «Ekman's faces »; MG – Morisky-Green; HT – «Hinting Task» (p=0.00;  $R^2=0.76$ ).

**Conclusions:** The diagnostic scale for the integrated evaluation of treatment results showed high values of reliability, validity, sensitivity and specificity. Thus, the complex scale for schizophrenic patients' treatment result proposed and approved by the author covers all aspects of mental disorder of patients with schizophrenia, which is confirmed by the close concurrence of the treatment result with the indicators on the used scales.

# ETHOLOGICAL APPROACHES TO PSYCHOTHERAPY OF CHILDREN OF EARLY AGE

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The relevance of researches in the field of psychotherapy and psychocorrection of children of early age is caused by high prevalence of mental pathology among this group. Moreover, the growth of prevalence of phenotypical analogs in group of "frustration of an autistic range" gives the grounds to consider this phenomenon, along with other manifestations of a pathomorphism of a mental dizontogenez, as one of options of the evolutionary preadaptation caused by global anthropogenic changes in ecology and the macrosocial impacts of cultural evolution. It implies expansion of temporary and substantial reference points of psychiatry of early age at the expense of family and perinatal psychology and psychotherapy and also supplementation of its traditional treatment-and-rehabilitation complexes with modern methods of neuropsychological correction. At the same time, few domestic researches in this field, as well as more numerous foreign works are often distinguished by the isolation of psychological approaches from biological ones, by a narrow-pragmatical orientation, by eclecticism and absence of serious theoretical justifications.

The purpose of this work was the theoretical justification of the ethological direction of psychotherapy of children of early age in the context of the concept "ontogenetically focused (reconstructive and conductive) psychotherapy of children and teenagers" as obligatory component of an integrated multilevel medical and correctional approach and the illustration of it with fulfilled and perspective technicians and receptions.

Theoretical basis of ethological approach itself is the fact that an early age (0-3 years of life) corresponds to "the somatic vegetative and instinctive level of psychological reaction" (according to V.V. Kovalyov) which determines the priority age-related symptomatology of a neuropathic and instinctive and behavioural range and the corresponding "targets" of metabolic, neurophysiological, syndromal, behavioural and social and personal levels of the polyprofessional help.

A key place in working with autistic children, foster children, and children who have lost their natural contact with their mother after a long separation should be taken by the holding therapy in its classic version, or with addition of intranasal injection of oxytocin (in the form of spray) to both participants of the procedure for strengthening of the mechanism of a mutual imprinting of the child and mother. The animal therapy, using the tent as an individual territory with the possibility of marking it, an artificial fire, a punching bag, picking up of plants, leaves, roots, etc., expansive and destructive games - the techniques that recover archetypes "the hunter - the collector" in a context of "collective unconscious" are aimed at revival and the sewage of phylogenetic instincts (according to K.G. Jung). Swing, hammocks provide external rhythmic stimulation as an alternative to autistic stereotypes and also can be used for creation of a trance necessary for implementation of positive regress in a context of ontogenetic-oriented psychotherapy. Within the framework of family therapy or classes in small groups we use the positive-regressive instinctive-archetypical technique: "egg"; "rebirth"; tricks "tsar Gvidon"; maternal massage, similar in ideology to methods of the "neurogravitational therapy" with use of the shaken cradles developed by children's psychiatrists of Vladivostok. Deeper phylo-ontogenetic layers of the social reaction which are presumably connected with the work of the mirror neurons can be mentioned due to provoking of mechanisms of unconscious induction by means of infectious laughter, imitation of panic, hackling and yawning, demonstration of elementary vocal or motive game interaction, etc.

In the context of positive regress to instinctive and behavioral models of ontogenetically oriented (reconstructive-conductive) psychotherapy the return to such phylogenetic forms of communication between a mother and a child as "the feeding kiss", fetching dialogue, "mother toking", exchange of gifts (game "Give - Take"), "an ostrich's hide-and-seek" and so on seems to be promising. For provoking an instinctive reaction, it is logical to use the sound of a crying newborn in the puppet game, the autist's mother demonstrates an ethological model of the reaction to his aggression (lowering head, tilting it to the side, pulling lips, avoiding eyesight- as contact interruption threat), imitation of licking of the newborn, olfactory stalemate stimulation and also soft strokings triple during the day on a back, hands and legs. Games with the father - tickling, "butting" with heads, fuss and playful fight on a carpet with imitation of behavior of animals and onomatopoeia by it are also counted on positive regress by the passed sensitive periods of mental ontogenesis and on a psychoevolution to a zone of the next development. Ethological and psycholinguistic approaches and also our own clinical experience assume orientation to N. Chomsky's concept about "congenital grammar" with use of positive regress to universal

phraseology at the initial stages of a reontogenesis of the speech. This refers to the anglo-form standard "subject-predicate-addition" (perhaps with introduction of the verb "eat"): "I am Mischa", "What are these slippers for?", "What do I hold in a hand?".

Based on V.V. Lebedinsky's concept concerning ontogenetic levels of regulation of a basal affective tone ("field behavior", the level of "stereotypes", "affective expansion", "social control") and understanding the primary and compensatory nature of the corresponding option of autonomous behavior which quickly enough becomes hyper compensatory, and then conditionally pathological, we formulated the following principles of correction of a stereotyped behavior. 1 - Not to fight against manifestations of field, stereotypical, expansive or archaic and social activity, and to harmonize them. It can be reached updating of "idle" levels of regulation of basal affectivity and a gradual building up of their phylo-ontogenetic hierarchy (because the passive humanist is so defective, as the ruthless soldier). 2 - To enrich each level due to a variety of its sensomotor manifestations, connection and simultaneous involvement of different sense organs and types of a physical activity (for example, the art-therapeutic round dance includes a dancing, vocal and social and behavioral stereotype of musical and scenic action). 3 - To be connected to the emasculated activity shown by the child and "to humanize" it due to saturation (aimless wandering, stereotypic swaying, senseless destruction, etc.) social-game contents ("driving the car", "a performance of the trained bear", "transformation of shreds of the broken-off paper during snowfall or a salute", etc.). 4 - To gradually expand a circle of people, participating in the self-regulating behavior (the musical and rhythmic duet, the trio, the quartet, etc.). In the context of the ABA-therapy complemented by the equipment of "emotional seasonings" and "maternal hypnosis" (according to B. Z Drapkin) receptions of the "vital scenarios" (for example, type situations, unexpected for the autist, - "the empty refrigerator", " burned porridge ", "mother twisted a leg") leading initially to extrapsychic, and then intrapsychic changes according to a postulate "being determines consciousness".

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# PERSPECTIVE MODEL OF FUNCTIONING ORGANIZATION IN ADOLESCENT PSYCHIATRIC HOSPITAL

### Yury Shevchenko, Georgy Panov, Olga Levkovskaya & Elena Zubova

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The high prevalence and steady growth of mental pathology and behavioral disorders in adolescence, their high social dependence and significance, as well as clinical and phenomenological singularity determine the relevance of special organizational forms of treatment and rehabilitation and correctional and pedagogical work of relevant institutions development. The last ones should obviously differ from the practice of traditional departments, specialized on children and adults, and focus on the specific ontogenetic patterns of puberty. The purpose of this study was to search for general age-related patterns of occurrence, design and dynamics of mental disorders in adolescents and develop the principles and practical models for organizing specialized psychiatric hospitals on this basis. The conceptual basis of the work presented was ethological and socio-biological research in the field of psychiatry. They have established that due to the abolition of the public-state initiation - "dedication" institutions specific to traditional cultures and having their prototypes in the behavior of many higher animals, the younger generation lost an effective tool for regulating the social and psychological maturation of the individual. Such blocking of phylo- and ontogenetically determined need for initiation manifests itself in unconsciously guided aggressive and asocial behavior of elementary adolescent groups and / or mental disorders typologically similar to key experiences during initiation. Social psychologists have found that at least 5% of those involved in subcultural practices need social rehabilitation with the help of a psychologist or psychiatrist.

We conducted a comparative clinical-psychopathological, anamnestic, socio-psychological study of more than 1000 adolescents of both sexes with suicidal and non-suicidal self-damaging behavior, chemical and non-chemical (including computer) addiction, eating disorders, "metaphysical intoxication", syndrome of sex rejection, pathocharacterological (according to A.E. Lichko) reactions of opposition to adults, emancipation, grouping with peers, hobby-reactions, reactions associated with the emerging sexual desire and other "teenage" pathology. The results of the analysis showed that regardless of the nosological representation of the main disease (primary dyshogentogenetic, endogenous, exogenous-organic, psychogenic,

somatogenic, mixed), its front behavioral manifestations fully and mainly correspond to the main pointsmodules of the spontaneously realized instinctive-social initiation program. Modules of adolescent initiation include: "separation" from an adult society; merging with a peer group and submission to its internal laws; aggressive raids from their own territory to adults (from destructive-marking vandalism in electric trains to demonstratively cynical sex in the subway); symbolic rituals of "death in the old status and rebirth in the new one"; "Immersion in mental chaos and merging with the sacred image"; "Worship is exaltation"; "Being in an altered state of consciousness"; "Acquaintance with magical knowledge"; "Accomplishment of public exploits"; "A demonstration of their physical and moral endurance"; "Marking of the body by coloring, damage and self-harm"; "The unification of clothing, hairstyles, demeanor, slang"; "The test of hunger, isolation and silence"; "Social oath-swear", etc.

Even without being the cause of teenager's decompensation, the frustration of the need for initiation is a very pathogenic factor causing his social disadaptation. The restriction of the separation organizational structures of devoted adolescents by law enforcement and colonial institutions (in Russia there are no institutions such as Shaolin schools popular in China, and health, labor and military sports camps are not designed for a long stay), paradoxically makes a mental hospital the only place where a teenager can survive the period of crisis in his life with minimal losses for society and complications for himself. Accordingly, the adolescent hospital should build its work in conformity with the socio-biological and traditional cultural initiation mechanisms. We propose the following organizational design of its operation. The entire period of the adolescent boy's stay in the hospital should be structured according to the principles of emotional stress psychotherapy (according to V.E. Rozhnov) and resemble the "course of a young fighter" in the army, the passage of which ends with the oath taking, which means entering into a new social and personal status. The absolute prolongation of the intermediate period between separation and reaggregation is possible due to the vacations regime, partial hospitalization, semi-stationary, and the relative - due to the intensification of rehabilitation measures, intra- and extrapsychic psychotherapy saturation of each hour of stay in the department, therapeutic pedagogy, correctional-psychological and socializing work. In fact, there is a dual scenario of traditional initiation: a) rituals of separation from the general environment (hospitalization); b) rituals of inclusion in the sacred environment (meeting and living together with other neophyte patients); c) the intermediate period (the time of active therapy in the hospital); d) rituals of separation from the local sacral environment (transfer to the mode of partial hospitalization, the eight-day cycle of intensively-expressive psychotherapy in the child-parent group); e) rituals of reintegration into the general environment (the final psychotherapeutic session dedicated to the day of discharge from the hospital). Systemic overcoming of a sustainable pathological condition (according to N.P. Bekhtereva) is possible due to separation from the negative influence of the reference group, computer dependence interruption of games and virtual communication, temporary "truce" and restriction of contacts with parents (analogue of a break with "mother-child" past). Instead, they introduce themselves to spiritual values (acquaintance with famous namesakes, the meaning of their own name, a course of cognitive characterology and sociology, bibliotherapy, vocational guidance, economic and sexual education), the development and improvement of direct communication skills. Group and individual art therapy creates the conditions for the negative emotions response, for self-knowledge and creative self-realization. Sports and occupational therapy should focus on the development of volitional qualities, and a system of prohibitions (taboos), regime restrictions (silence regime, ascetic diet), fines and rewards, overcome excessive ambition, make life attitudes more realistic and promote internal changes. The return of a teenager to his home in a new, transformed status must be preceded by corresponding changes in the house itself and in its inhabitants relations (the transformation of the individual territory of the child and the joint creation of a "family coat of arms"). The optimal completion of the "threshold" initiation stage is the eight-day cycle of family-group intensively-expressive psychotherapy (INTEX), conducted for adolescents preparing for discharge (preferably, in a mixed sex group) and their parents. A ceremonial session of inclusion or restoration (reagregation) with trials in the form of performing psychological and physical "feats" that completes the entire period of hospitalization and initiation should replace the practice of routine individual discharge from the hospital and be built in the form of a general holiday for teenagers, including all the main elements of the ritual.

# RATIONAL PHARMACOTHERAPY AND INTEGRATIVE PSYCHOTHERAPY OF DIFFERENT FORMS OF ENCOPRESIS IN CHILDREN AND ADOLESCENTS

### Valery Shishkov

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**Background:** The same symptom is caused by both psychogenic factors and disorders in the functioning of organs or systems. A tactic that focuses primarily on symptom-centering is justified, since this dysfunctional disorder inevitably leads to somatopsychiatric reactions.

**Goal and tasks:** Show the basic principles and the effectiveness of combination terapist of encopresis in children and adolescents, depending on the form of the disease and the age of the child.

Subjects and methods: 55 children and adolescents from 2 to 13 years (45 boys and 10 girls) whose parents have turned to a psychoterapist about encopresis in 2014-2018.

**Results:** Constipation (10%) with paradoxical fecal incontinence contributes to the development of encopresis. Constipation can provoke anal fissures and pain during defecation, which form the fear of the pot (5.5%). Neurotic encopresis - protest response, hysterical monosymptom (43.6%), unconscious use of a symptom to fight for status in the family hierarchy, with the appearance of a stepfather (32.7%) or with a planned divorce of parents (7.3%). Protest encopresis occurs at the birth of a sibs or admission to a child care facility (3.6%), being a regressive symptom, secondary (54.5%), against the background of the developed neatness skill, or primary (16.4%) in the structure of mental infantilism. Neurosis-like encopresis is found in the structure of ADHD (18.2%), when the child flirts, forgetting to go to the toilet.

**Conclusions:** Neurosis-like form of encopresis (18, 2%), in addition to behavioral therapy, requires the appointment of nootropics. In the neurotic form of encopresis, behavioral therapy (90%) is used in combination with specificfamily therapy. In children under 4 years old (10%), the first stage uses play puppet therapy. In the absence of a quick effect from behavior therapy, imperative hypnosis suggestion is used (12.7%). The effectiveness of integrative therapy encopresis 92.8%.

Keywords: encopresis - fecal incontinence - neurotic form - neurosis-like form - behavioral therapy

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## SOME FACTORS AFFECTING DEVELOPMENT OF CHILDREN'S GAME AND INTERNET ADDICTION

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**Background:** The prevalence of gaming among children is 1-9%. The family affects the physical and psychological health of the child, including the formation of his addictions.

**Goal:** The study of individual psychological factors contributing to the formation of gaming and Internet addiction in children.

**Subjects and methods:** 32 children: 62.5% (20) boys, 37.5% (12) are girls, from 5.5-17 years old, with neurotic or behavioral disorders, observed by a psychotherapist from 2018-2019, their parents. Questionnaire "Analysis of family relationships" E.G. Eidemiller. Questionnaire Spielberger-Khanin. Giessen questionnaire for psychosomatic complaints. The projection technique "Man in the rain." Test Kotlyarova on gaming addiction in children. Kulakov test for Internet addiction in children.

**Results:** Gamers(G)-31.3%(10 children), of which 9 boys. There were no Internet addicts, 15.65%(5 children) have a high risk of developing Internet addiction(DIA). Among parents, the following types of family relationships were more common: hyperprotection(p<0.05), minimum sanctions(p<0.05), lack of bans requirements (p<0.05), excessive sanctions(p<0.05), the projection on the child's own undesirable qualities (p<0.05). Parents of children with DIA projected on the child's own undesirable qualities(p<0.05). The level of personal anxiety is directly proportional to the development of G and DIA (p<0.05), and reactive anxiety is inversely proportional to G and DIA (p<0.05). According to the Giessen psychosomatic complaints questionnaire, all scales were higher in children suffering from G and DIA(p<0.05). The "Man in the Rain" technique: children with G and DIA didn't have "rain protection tools" in the figure, they were at 25% in the control group.

**Conclusions:** Gaming is common among children; Internet addiction is forming. Their development is influenced by hyperprotection, minimal and excessive sanctions, lack of requirements-prohibitions, projection of a child's own undesirable qualitie; low reactive anxiety and high personal from parents; low adaptation in children; they have psychosomatic complaints.

Keywords: gaming - Internet addiction - computer addiction

## HIPPOCAMPAL DYSFUNCTION AS PREDICTOR OF POSTOPERATIVE DELIRIUM IN ELDERLY PATIENTS WITH CARDIAC SURGERIES

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**Background:** Development of an acute cerebral dysfunction in a form of delirium after cardiac surgeries is common general medical problem that associated with prolonged hospital stay after the surgery, risk of development of infection, risk of subsequent neurocognitive changes, and postoperative morbidity.

ICD 10 defines delirium phenomenologically as exogenous psychosis and the main criterion is disturbance of consciousness. In DSM 5 delirium describes in Criteria A as disturbance in attention (i.e., reduced ability to direct, focus, sustain, and shift attention) and awareness (reduced orientation to the environment) and Criteria B as disturbance that develops over a short period of time, represents an acute change from baseline attention and awareness, and tends to fluctuate in severity during the course of a day.

The risk factors of development of postsurgical delirium are traditionally divided into preoperative (baseline), perioperative and postoperative. Significance of preoperative risk factors (gender, education, smoking, using alcohol, and other psychoactive substances) usually derived from the major retrospective studiesand not accepted by all researches.One exclusion is the age, the only well-established factor of development of postoperative delirium.

Complex pathogenesis of postoperative delirium including proven disbalance of neurotransmitter systems sustaining cascade of pathological reactions represents relationships between delirium and cognitive disturbance. According to several studies, clinically significant cognitive disturbances diagnosed before surgical intervention can be predictors of postoperative delirium. Results of the different studies showed that postoperative delirium can be independent risk factor of developing of dementia. Both statements show the cohesion of postoperative delirium and cognitive disturbances and allow seeing relationship "Diathesis-Stress," where biological stress represents the relationship between peri-and postoperative impacts on CNS of the patient, his cognition. Developing of delirium is seen as disturbance of adaptation and brain capacity.

According to this conception, it's important to establish early markers of brain dysfunction, for example, neurodegeneration, that can be predictors of postoperative delirium. Screening of the cognitive disturbances used in the majority of studies targets mostly significant changes reaching dementia level. Resolution ability of neuroimaging commonly used in clinical practice (MRI and CT brain) doesn't allow detecting early (preclinical) signs of brain pathology.

One of the most common age-specific pathologies of the brain Alzheimer's disease has slow-progressive course and doesn't have clinical symptoms defining beginning of the disease. In the early stages memory issues and other neurocognitive symptoms don't affect day to day life and normal functioning. This stage of the disease is represented by some local hippocampal dysfunction that can be confirmed by specific neuropsychological tests. In spite of mild clinical symptoms, all pathological processes are continuing to develop and represent neurodegeneration. Therefore, timely detection of mild cognitive disturbance hippocampal type shows brain vulnerability towards external factors (peri and postoperative factors), and becoming predictor of failed adaptation, clinically presented as postoperative delirium.

**Purpose of the study:** to compare risk of development of postoperative delirium in elderly patients with and without hippocampal dysfunction.

#### **Research objectives:**

- Assessment of hippocampal function in dynamics in patients after cardiac surgeries (preoperative and early stages of postoperative period).
- Testing of hypothesis about correlation between hippocampal dysfunction in preoperative period and subsequent developing of delirium.

Subjects and methods: Type of study: selective observational longitudinal study of the same group of objects in pre and postoperative period.

Inclusion criteria: males and females older than 65 years old having indication for cardiac surgery.

Methods: neuropsychological testing (FCSRT-IR), statistical analysis.

**Results and discussion:** For the diagnosis of degenerative process in CNS on early stages Free and cued selective reminding test immediate recall (FCSRT-IT) was shown to be the most sensitive. Based on learning of verbal material and semantic cues with recalling, FCSRT-IT allows differentiating amnestic disturbances hippocampal type from secondary disturbances of memory due to neurodynamic changes.

Comparing different memory assessment tests and biomarkers of Alzheimer's disease (AB (1-42) / tauprotein), has shown that FCSRT-IT test is the best in detecting early signs of degeneration of Alzheimer's type.

Many patients in elderly have increased risk of postoperative delirium.

There is a need for developing of algorithm of diagnosis and assessment of risk factors of this pathology. Understanding of pathogenesis and predictors of developing of postoperative delirium would allow using prophylactic measures before surgical treatment.

Timely and comprehensive assessment allows detecting postoperative delirium on early stages and increasing quality of psychoneurological help in these patients.

**Conclusion:** Hippocampal dysfunction is a factor of developing of postoperative delirium in elderly patients that requires using additional measures in patients with mild cognitive disturbance to prevent developing of postoperative delirium.

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## AGE-RELATED CHANGES OF COGNITIVE FUNCTIONS OF MEDICAL WORKERS

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Background: The current socio-demographic situation is characterized by an aging population. Globally, the group of people aged 60 years and older is growing at a faster rate than other population groups. Ageing is accelerating in all regions of the world. In this regard, older persons are increasingly seen as active participants in the process of social development. This determines the need for the elderly person to be an active subject of the social process and retain their cognitive abilities. To maintain adequate social activity and preserve "social capital", longterm good physical and mental health is necessary. The quality of "social capital", social activity, participation in decision-making in the community, lack of need for care in everyday life, the depth of social relations are related to the quality of the cognitive functions of the elderly. Cognitive disorders limit the possibility of participation of an aging person in social and production processes and require additional costs from family members, society, social services and health care, the state for the maintenance and treatment of an elderly person. Diagnostic criteria of age-related cognitive forms are contradictory and insufficient. Researchers and clinicians note that it is very difficult to distinguish "normal aging" from degenerative and cerebrovascular pathology. This is due to the lack of sensitivity of standard neurocognitive scales. A large-scale study of aging in a large national sample of older people in England showed that cognitive aging has several possible trajectories. Gender-specific models included age, sex, education, financial condition, concomitant somatic diseases, physical activity, alcohol intake, Smoking, depression. Gender, age, depression, physical inactivity were important parameters for the rate of General aging. Of the cognitive functions, Executive functions and global cognitive function were the most sensitive. The review of studies shows the lack of a unified methodological approach to the assessment of neurocognitive functions in aging. Fixation of disparate indicators does not allow understanding the process of General cognitive aging. Varako N. A. et al. neuropsychological assessment by A. R. Luria (praxis, gnosis, reading, calculation, attention, memory, reasoning, visual-spatial and Executive functions) was used. Heterogeneity of cognitive aging, neuropsychological mechanisms of possible compensation of reduced functions were revealed. Intensive rates of demographic aging, the need to maintain social and cognitive activity of the elderly determine the relevance of studies of normative aging. The lack of a unified methodological approach to the study of normative aging and a standardized set of cognitive assessment tests allows developing their own psychometric tools.

The aim of the study is to investigate age-related dynamics of cognitive functions of health workers as members of society.

**Subjects and methods:** Participants of the study-148 employees of medical institutions: 12 men, 136 women, their age ranged from 27 to 74 years. The average age was 45.1+5.7 years. Inclusion criteria: 1. Right-handed (leading right hand). 2. There are no clinically significant diseases (somatic and mental disorders) in the history. Neuropsychological and statistical research methods were applied. The research tool was the neuropsychological rapid method, including the subtests: "Memorizing 9 words in three

presentations (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> attempts)", "Sequential subtraction "," Test "of Benton's visual memory", "Solving an arithmetic problem", "Overlaid images", "Specified flow of associations in 1 minute", "Figure of 3 geometric figures", "Blind hours", "Graph-motor test", "Delay word reproduction". Statistical data processing was performed using SPSS Statistics 17.0 and Microsoft Office Excel 2007. The Mann-Whitney Utest was used to compare the results of the subjects in different age groups and determine the significance of differences.

Results: 3 research subgroups were formed: 27-40 years, 41-50 years, 51 years and older. The educational level in the selected age subgroups is heterogeneous, which probably corresponds to the age distribution of these indicators among the staff of medical institutions included in this study. The heterogeneity of the educational level of the studied is not significant for assessing the state of their cognitive functions, since their instrumental (basic) parameters were evaluated. Comparison of the results of subtests of neuropsychological Express technique showed heterogeneous results in subgroups of the study. In addition, the dynamic characteristics of psychological processes were evaluated: depletion, inertia, impulsivity. A significant difference in the performance of the graph motor test between the subjects of the age subgroup (27-40 years) and the subgroup (41-50 years) was statistically confirmed. The test was carried out using a marker that left a mark on the paper, the parameter of the total severity of regulatory errors introduced into the processing, in the form of the sum of penalty points normalized with respect to the number of series of patterns performed by each test subject. During this test, a series of movements was mastered, consisting of separate arbitrarily controlled links, since the automation of movement, arbitrary control over the implementation of each of the links decreased, the speed of movements increased. For the qualitative performance of this simple test requires a sufficient level of development of all structural and functional components of brain functions and, in particular, the "front" function of programming and management and consistent organization of movements. In older people revealed a much greater number of errors, interruptions of the test than the representatives of the more "young" subgroup. Similar results were obtained when comparing the "young" and "old" subgroups. Thus, the complexity in development and automation of graph motor skill increase with age. When comparing the results of all neuropsychological tests in representatives of the "average" and "old" subgroups no statistically significant results were found.

**Conclusions:** 1. Performance indicators of neuropsychological subtests of the right-handed group under study decrease unevenly as they age. 2. The study revealed that the participants of the study - young hospital workers coped better with the implementation of graph motor tests than their older colleagues. In the older participants of the study, the evaluation of the strategy of the new figure correlated with a slight decrease in predominantly nonverbal and to a lesser extent with verbal Executive functions, with a slow pace of neurocognitive decisions of the highest order and a lower speed of information processing.

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## COMMUNITY - BASED PSYCHIATRY IN CROATIA: CHALLENGES AND EXPERIENCES

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There is a plenty of evidence for the effectiveness of community-based interventions to achieve a recovery, optimal quality of life and destigmatization of persons with mental disorders. Flexible assertive community treatment teams that provide psychiatric care at homes of these patients are particularly important because of their focus on recovery processes. Implementation of community-based mental healthcare into the Croatian healthcare system is currently limited. In spite of that, a pilot project "Launching Community Mental Health Protection Teams" was realized by the Ministry of Health of the Republic of Croatia during 2017 and 2018, as an establishment of an innovative concept of Community-based psychiatry at the national level. Three mobile psychiatric teams represented the most important segment of the project within the University Psychiatric Hospital Vrapce, the General Hospital Karlovac and the General Hospital "Dr. Josip Bencevic" Slavonski Brod. Interventions that have been carried out significantly contributed to remission, recovery, life quality improvement and destigmatization of those with mental disorders. Finally, this presentation will analyze the perspective of the implementation of this model with challenges and limitations caused by the specifics of the Croatian public health system.

Key words: Community-based psychiatry - mobile psychiatric teams - recovery - Croatia

## AFFECTIVE PATHOLOGY IN THE STRUCTURE OF ORGANIC PSYCHOSYNDROME IN TUMORS OF DIENCEPHALIC LOCALIZATION

### Yuliya Sidneva, Ludmila Astaf'eva, Oleg Zaitsev, Pavel Kalinin & Maksim Kutin

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The tumors of the thalamic-hypothalamic-pituitary system (diencephalic region) include a fairly large group. These are pituitary adenomas, craniopharyngiomas, pineal tumors, gliomas, meningiomas, and others. Tumors differ in the location, histological structure, and manifestations of the clinical picture with the corresponding hormonal changes, approaches and methods in treatment.

Psychopathological symptoms are revealed in the symptoms of lesion of the diencephalic region in addition to cerebral, neuroendocrine symptoms, neurological disorders. It is represented by emotional, motivational, personal, cognitive impairments, inversion of the sleep-wake cycle, seizures.

Disorders of mental activity are detected in all tumors of this localization in varying degrees, according to the authors from 20 to 100%. Affective pathology varies from 2 to 80% by the literature. The psychopathology of affective disorders in tumors is diverse in its manifestations and may be due to the localization of the lesion (irritation) of the brain, the histology of the tumor and, accordingly, changes in the level of neurohormones.

The leading place is occupied by pituitary adenomas. Pituitary adenomas have 15% among all brain tumors; occupy the 1<sup>st</sup> and 2<sup>nd</sup> places by detectability at the age of 15 to 54 years. By hormonal activity, pituitary adenomas are divided into prolactin-secreting (35%), GH-secreting (15%), ACTH-secreting (10%), TSH-secreting (1%) and hormone-inactive adenomas (GNA) (40%). Craniopharyngioma is 3-4% among all brain tumors (1-4% in adults, 6-10% in children).

Affective pathology occurs from 30 to 60% with hormone-active pituitary tumors, with hormoneinactive - less than 6%. At the same time, with craniopharyngiomas with a decrease in hormone secretion, emotional disturbances are detected in 67% of patients. Mood changes, anxiety (panic) and autonomic disorders, personality disorders are detected in patients. Depression in the structure of violations is sometimes difficult to isolate for various reasons. So, with craniopharyngiomas, depression occurs only in 2% of patients with the suprasellar variant of tumor growth (67%).

The study of affective disorders on the model of local brain damage with neuroendocrine disorders will bring to understanding: pathogenesis processes in the brain, adaptive responses of the body; new features in the diagnosis and treatment of disorders; rehabilitation of patients.

**Objective:** To study affective disorders in adult patients with pituitary adenoma and craniopharyngioma.

**Subjects and methods:** 90 patients (18-72 years old, mean age 38+2): pituitary adenomas - 40 (44.5%), craniopharyngiomas - 50 (55.5%). Methods: psychopathological, data from endocrinological, neurological, neuroimaging methods.

#### **Results:**

1. Growth-hormone-producing adenomas - emotional disorders are in 60%.

- 2. Adrenocorticotropic hormone-producing adenomas: a) Cushing's disease changeable mood, depression, apathy, sleep disturbance, with visceral symptoms (tachycardia, fluctuations in blood pressure) are in 50%.
- 3. Prolactin-producing adenomas (prolactinomas) emotional disorders, sleep disturbance are in 30%. Nonspecific symptoms of the asthenia were in almost a quarter of patients.
- 4. Thyroid-stimulating hormone-producing pituitary adenomas increased emotionality, excitability, changeable mood, with frequent "panic attacks" are in 56%.
- 5. Hormone-inactive pituitary tumors:
- a) Non-functioning pituitary adenomas psychopathology is present in 6%. There are violations of sleep, changeable mood, weakness, decreased memory.
- b) In craniopharyngiomas emotional and personality disorders was in 67%. This is combined with cognitive, motivational and other impairments.

**Conclusion:** Affective pathology in tumors of the diencephalic region is largely due to the localization of the tumor, the corresponding damage to brain structures, changes in the levels of neurohormones. The affective pathology of the psychoorganic syndrome can be combined with other psychopathological symptoms - amnestic syndrome, hallucinations, delusions, disorder of consciousness and others.

Key words: affective pathology - organic psychosyndrome - pituitary adenoma - craniopharyngioma

# COMPLEX APPROACH TO TREATMENT OF TARDIVE DYSKINESIA: MEDICAL AND SURGICAL TREATMENT

### Alexey Tomskii, Oleg Zaitsev, Anna Poddubskaia & Anna Gamaleya

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Introduction: Tardive dyskinesias are a heterogeneous group of pathologies that manifest with various types of movement disorders (dystonia, parkinsonism, chorea, tics, myoclonus, tremor, akathisia, etc.). These symptoms occur as a result of taking D2 receptor blockers (typical neuroleptics, metoclopramide. The pathological manifestations could appear after taking and even canceling a drug and are persistent, irreversible. In this research, we consider primarily the tardive dystonia (TD). The clinical manifestations of TD are generally similar to idiopathic dystonia. TDs often is focal or segmental, typically beginning with the muscles of the face or neck.

To date, there are several therapeutic approaches to the problem of hard dystonias. The first is replacement with an atypical antipsychotic. It is important, that in case of fast canceling the drug, the severity of dystonia may even increase, at least for a while, while increasing the dose of the drug often creates the effect of reducing the severity of dyskinetic movement ("masked" dystonia). Often, clozapine is preferred as a drug that has not only an antipsychotic, but also a direct antidiskinetic effect. Anticholinergic drugs should be used with caution because of the risk of worsening TD, as well as because of the negative effect on cognitive function. Clonazepam, proven in several double-blind randomized trials, has a moderate therapeutic effect. Also, the herbal drug ginkgo biloba, as well as amantadine, has certain positive effect on dystonia. In case of focal forms, it is possible to use botulinum toxin type A. Tetrabenazine, which was developed to correct chorea in Huntington's disease, is used off label. Also two drugs that are similar in structure to tetrabenazine are also approved by FDA - a inhibitor of vesicular monoamine transporter 2 (VMAT2) - valbenzine and deutetrabenazine, which is isotopic isomer of tetrabenazine. Also DBS GPI could be used for treatment TD. According to the literature, the improvement of motor status occurs on average by 60-80%.

The aim of this work is to summarize the clinical experience of observing two patients with tardive dystonia who underwent DBS surgery.

Subjects and methods: Two patients are under observation in N.N. Burdenko neurosurgery center. The first case is 29-year-old patient (observation 1), treated with neuroleptics for panic attacks and anxiety-depressive disorder, developed severe pharmacoresistant late neuroleptic dystonia. The indication for the operation was pronounced disability due to movement disorders. The patient underwent DBS surgery, electkodes were implanted in the inner segment of the globus pallidus bilaterally (DBS GPi). The second case is a 26-year-old patient (observation 2), suffering from schizophrenia with polymorphic obsessive-compulsive disorder (obsessive thoughts, ideas, fears, rituals) and the development of severe neuroleptic dystonia/dyskinesia was also observed on the background of long-term neuroleptic administration. Patient underwent the same surgery. For clinical evaluation of the results generally accepted quantitative scales prior to surgery and at various times of follow-up were used. The duration of observation ranged from 2 to 5 years. The next scales were used: The BFMDRS scale was used to assess the dynamics of movement disorders in patients with neuroleptic dystonia, the Y-BOCS scale of obsessive-compulsive disorder, the OCD screening test, Beck depression inventory scale, the Spielberger-Khanin anxiety inventory.

**Results:** Both patients with TD (observations 1 and 2) had a significant reduction in the severity of the dystonic syndrome (more than 90% on the BFMDRS scale), an improvement in the quality of life and social activity.

**Conclusion:** The problem of TD is an important medical and social problem and requires a comprehensive interdisciplinary approach. It is possible to DBS of inner segment of the globus pallidus, which shows a high clinical effect and reduction of dystonia.

## PERSONALIZED MEDICAL AND PSYCHOLOGICAL CORRECTION OF RISK FACTORS FOR CARDIOVASCULAR DISEASES USING REMOTE TECHNOLOGIES

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**Background:** Cardiovascular diseases are the main cause of death, loss of function, poor quality of life, and the high cost of treatment and rehabilitation measures in the world. Large-scale studies show that up to 90% of heart attacks and strokes can be prevented by prophylactic correction of cardiovascular risk factors. The rapid growth of telecommunication and network health resources thanks to modern means of communication (video calls, SMS alerts, e-mail, etc.) allows to remotely provide personalized psychological counseling for patients with heart diseases.

**Subjects and methods:** The purpose of the study is a comparative investigation of changes in risk factors for cardiovascular diseases under the influence of telemedicine psychological counseling (technology of in-depth preventive and motivational counseling, the formation of coping skills with the disease). 140 patients with chronic heart diseases were examined. They were divided into two comparable groups of 70 people. In the experimental group (No. 1), medical-psychological correction was carried out using remote technologies; comparison group (No. 2) was under standard observation. All patients received supportive pharmacotherapy.

**Results:** The use of remote psychocorrection technologies in the experimental group for 12 months allowed us to reach the target levels of blood pressure (p=0.002), physical activity (p=0.003), increase the proportion of patients who consume 400 g of fruit and vegetables per day (p=0.006), reduce body mass index (p=0.0003), reduce waist circumference (p=0.002), lower cholesterol (p=0.004), in the smoking patient subgroup, reduce the number of cigarettes smoked per day. Between the groups after 12 months of observation, there were no statistically significant differences in the level of blood glucose and the volume of alcoholic beverages consumed.

**Conclusion:** Conducting a personalized remote medical and psychological correction significantly improved the profile of risk factors for chronic heart diseases.

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# SPECIFIC FEATURES OF DEPRESSIVE DISORDERS IN VICTIMS OF SEXUAL VIOLENCE

#### Alla Tyuneva & Boris Tsygankov

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There have been examined 104 women who suffered rape. Majority of women examined (56.7%) had suffered rape at an age of 12 to 18 years. The duration of the period assessed from the moment of rape to seeing a psychiatrist varied from 1 month to 30 years (on average was  $9.3\pm1.3$  years).

We applied random sampling technique whose only selection criterion was the availability of an episode of sexual violence in anamneses of female patients. We used clinical and anamnestic method, dynamic observation over the condition of those under examination. To determine overall level of subjective distress we used the impact of event scale (IES) developed by M. Horowitz (1978) and revised by Weiss (1996). There was also conducted clinical psychiatric examination.

The sample did not include women in whom psychogenic disorder developed on the backdrop of personality disorder of various geneses. Also excluded were the persons with signs of rough organic brain syndrome and patients with psychotic symptomatology, whether at the time of examination or in the past.

Depressive disorders in victims of rape were presented by the anxio-depressive reactions during acute period of post-traumatic disorders (58 - 55.8%) that subsequently transformed under adverse conditions into prolonged depressive reactions as part of adjustment disorder (19 - 41.3%); mild depressions (11 - 23.9%) and moderate depressions (16 - 34.8%). The majority of the women examined (32 - 69.6%) with depressive disorders in premorbidity had these character features: undue susceptibility and an impressibility with tendency to guardedness in external manifestation of emotions and enduring fixation

on emotionally significant situations. Second most frequent in this group were found to be asthenic persons (14 - 37.8%). In greatest number were presented the female patients who were brought up in conditions of hyperprotection (33 - 71.7%). In overwhelming majority of cases (87.5%), in such families the mother (less often the father) had domineering, authoritative character. In lesser number (13 - 35.1%), those brought up in the conditions of neglect in disadvantaged families.

The most apparent depressive disorders were noted in the women after group violence, who were blamed in their families (T>2, p<0.05), it being of greater significance for rape victims aged below 18 (T>3, p<0.01). In these women the feeling of own guilt was prominent in the structure of depressive disorders.

The apparentness of feeling of own guilt in what has occurred was higher in women brought up in the families where parents instilled the "victim herself is guilty" attitude (T>2, p<0.05). The accusatory position of family members expressed in blaming in what has occurred or suggestions that the victim could do more for her defence in a situation of violence, and "silent" condemnation of the victim (ignoring, avoiding, etc.), strengthened the feeling of own fault in victims of sexual violence.

In 28 (48.3%) of the sexual violence victims surveyed there were noted as part of anxio-depressive reactions in acute period the post-traumatic depersonalisation changes that did not reach psychopathological level and therefore these disorders are better describes by the term "change of consciousness". In the structure of changes being described the leading one was the autopsychic variant of the change of consciousness which manifested in the feeling of a changed nature of the sense of self (10 - 35.7%), disorder of sensory perception (5 - 17.9%). Whereas the intensity of these conditions was defined by degree of maturity of the personality (T>3, p<0.05). The depressive disorders in case of this change of self-consciousness were accompanied by sensitive ideas of attitude, thoughts that people around were noticing changes in them, knew the reason for that and were condemning them.

The allopsychic form of change of self-consciousness was second most frequent to occur and could proceed with prevalence of the feeling of threat emanating from the outside of (6 - 21.4%) or feeling of unusual void (4 - 14.3%). The intensity of conditions with a feeling of threat was determined by degree of intensity of the stress endured during rape related to fear for her life (T>3, p<0.05), and desire to conceal the fact of rape from people around. This form of change of self-consciousness was followed by a feeling of anxiety, agitation, tearfulness and tendency to sudden outbursts of irritation.

For women in all studied cases the situation of violence was an exceptional, highly traumatising experience, with disruption of control of one's life. As a result of these experiences there have been collapsing habitual views of themselves, the world around, which led to the development of cognitive dissonance. The apparentness of manifestations of a change of self-consciousness decreased as the psychologic traumatic experience becomes more remote, and then disappeared completely. However, a consequence of these disorders has been the formation of cardinally different perception of oneself and the world around, which was becoming the basis for emergence of character changes, which prevailed in a clinical pattern when symptomatology was becoming more complicated.

The formation of more complex and profound depressive disorders in victims of sexual violence occurred by two variants. The first was distinguished by fast formation of depressive neurotic symptomatology - 22 (47.8%) and was accompanied by additional psychotraumatic factors affecting the victim. The second variant of the development of depressive disorders of neurotic level (24 - 52.2%) was characterized by gradual onset of depressive symptomatology with more distinct manifestation of a disturbing component. In this variant the victims of violence found themselves in a situation of "compelled emotional isolation" because of desire to conceal the fact of rape.

Thus, though depressive disorders in victims of rape may differ by the variety of clinical manifestations, but at the same time do not go beyond neurotic level of disorders. Under the influence of additional psychotraumatic factors, depressive disorders tend to have more complicated depressive symptomatology and to be more prolonged in time.

# COMPLICATIONS AND ADVERSE EFFECTS OF NEUROLEPTIC THERAPY FOR PATIENTS WITH SCHIZOPHRENIA: CLINIC, PROGNOSIS AND CORRECTION

### Boris Tsygankov

#### A.I. Evdokimov Moscow State University of Medicine and Dentistry, Moscow, Russia

The clinical and pathogenetic patterns of the development of side effects and complications of antipsychotic therapy and the research of clinical and biological predictors of outcomes in the effectiveness of therapy has been studying for many years at the Department of Psychiatry, Narcology and Psychotherapy A.I. Yevdokimov Moscow State University of Medicine and Dentistry (MSUMD).

New data were obtained about the etiopathogenesis of neuroleptic complications by the type of neuroleptic malignant syndrome (NMS) and generalized allergic reaction (GAR), which are determined by autoimmune processes with a primary lesion of the hypothalamus.

The introduction into psychiatric practice new class of antipsychotics, called "atypical" from the beginning of the 80s of the last century in comparison with the widely used "typical", allow to identify the specific side effects and complications of this group of drugs. Therapy with atypical antipsychotics (AN) reduces the risk of extrapyramidal side effects and in the same time leads to neuroendocrine dysfunctions and diseases much more often.

Neuroendocrine disorders during the atypical antipsychotic therapy are defined as an imbalance in the functional state of the endocrine glands caused by the pathogenetic mechanisms of the disease itself, premorbid status and side effects of the drugs. According to epidemiological studies regarding the frequency of symptoms and syndromes of neuroendocrine disorders from AN therapy vary significantly. Weight gain (antipsychotic obesity) occurs in 40-92% of cases, metabolic syndrome in 49.3% of cases, type II diabetes mellitus in 6.2 - 25% of cases.

Clinical and biological studies of neuroleptic complications like NMS and GAR make possible to predict the severity of neuroleptic complications, the degree of blood-brain barrier damage, and evaluate the effectiveness of the therapy. The enzymes and their amount in blood serum and cerebrospinal fluid were determined as reliable predictors of the therapy effectiveness. Endocrinological changes in the dynamics of neuroleptic complications indicated neuroendocrine dysregulation in the central and peripheral units, as well as the functional state of the endocrine glands. The developed and implemented treatment system for NMS and GAR, taking into account the clinical and biological predictors of their development and dynamics, allowed to prevent deaths in the territory of the Russian Federation in most cases.

The first comparative analysis of therapy with typical and atypical antipsychotics in paranoid schizophrenia patients performed with a large clinical material, including the results of long-term outpatient monitoring, inpatient treatment of paranoid schizophrenia patients at different time periods; the dynamics of cognitive and negative disorders in the process of psychopharmacotherapy has been determined.

Determination of differentiated indications for prescribing various groups of antipsychotics will allow optimizing the psychopharmacotherapy of patients with paranoid schizophrenia, including through a more focused use of modern expensive drugs

The study revealed that rate of achievement of remission with different classes of antipsychotics was not statistically significant, and associated more with course of paranoid schizophrenia. Study of the antipsychotics effect on negative symptoms during remission also did not reveal any advantages in the compared classes of drugs. In order to establish the effect features on cognitive impairment in patients with schizophrenia in each group of antipsychotics, a comparative analysis of changes in cognitive functions in the dynamics of "psychosis - remission" was carried out. Study of cognitive functions showed that atypical antipsychotics due to less sedative effect provide better neurocognitive tests in patients at the initial stages of psychosis therapy. However, after the onset of remission and a reduction in the dosages of both typical and atypical antipsychotics to supportive ones, differences in the pharmacological subgroups were smoothed out and the course of the disease played the key role.

Further development of perspective scientific research is due to the high social relevance of studying the course of schizophrenia in the context of modern methods of its therapy. The complex nature of the study of biopsychosocial factors of the individual course of disease and individually oriented biological and socio-rehabilitation therapy at different stages of the disease is assumed. The development of interdisciplinary clinical, psychopathological, psychoneurophysiological, immunological, biochemical, endocrinological, biochemical and genetic aspects of individual intolerance to antipsychotic therapy will significantly increase therapeutic efficacy while saving material resources for the correction and treatment of somato-endocrinological complications.

# SUPPOSED MECHANISMS OF INFLUENCE OF THE HEPATITIS C VIRUS ON THE DEVELOPMENT OF NEUROPSYCHOLOGICAL DISORDERS

### Boris Tsygankov<sup>1</sup>, Galina Ivanova<sup>1</sup>, Galina Mamedova<sup>2</sup> & Evgeny Kuznetsov<sup>1</sup>

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Introduction/Objectives: Hepatitis C virus (HCV) infection produces a chronic systemic disease that induces chronic hepatitis, cirrhosis and hepatocellular carcinoma. In addition to its effects on liver, patients with chronic HCV infection may present with a range of extrahepatic symptoms including neuro-psychiatric disorders. These extrahepatic manifestations are independent of severity of the underlying chronic liver disease and hepatic encephalopathy. The presence of HCV-associated neuropsychological disorders has a significant impact on the quality of life and wellbeing of patients with HCV. The aims of this review are to summarize recent literature looking at the associations between psychosocial and neurocognitive factors and HCV, identify the most common neuropsychological disorders and consider the probable mechanisms of mental and cognitive impairment in patients with HCV.

**Subjects and methods:** PubMed/Medline was systematically searched for psychosocial and neurocognitive factors associated with hepatitis C and patient wellbeing. In this review 83 valid articles were analyzed from 1994 to 2018. Results: According to the literature review in the group of HCV-positive patients were found a significant decrease in higher cognitive functions: memory impairment, concentration and listening. These manifestations of cognitive dysfunction are supposed to be similar to the early symptoms of Alzheimer's disease. An increased risk of developing dementia (including Alzheimer's disease) has also been noted. The most frequently diagnosed symptoms were fatigue and sleep disturbances, associated with mood disorders diagnosed in 19.2 % of cases. Several mechanisms have been considered to explain the pathogenesis of neuropsychiatric disorders observed in chronic HCV infection: 1) the concept of the direct neuroinvasion of HCV; 2) derangement of metabolic pathways (including alterations in neurotransmitter circuits); 3) cerebral or systemic inflammation.

**Conclusions:** HCV's impact on quality of life and wellbeing has serious clinical and social consequences. Considering the serious extrahepatic implications for individuals, it is imperative that healthcare professionals pay close attention to neurocognitive factors, especially since early manifestations of neuropsychological disorders are similar to early symptoms of Alzheimer's disease and the risk of dementia in this group of patients is significantly higher To date, the mechanisms of various mental and neurological disorders in patients with chronic HCV infection have been partially identified, but the long-term effect of these changes requires further study. Further research in this area may provide a potential opportunity to create targeted therapy that could significantly improve the quality of life of patients with HCV.

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# POSTMORTEM ANALYSIS OF TEENAGERS SUICIDES

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Difference in formation and dynamics of suicide behavior of teenagers and adults doesn't allow to use uniform principles of diagnostics, therapy and maintaining patients. The urgency of a problem of children's and teenage suicides is defined by their remaining high frequency, tendency to serial and group suicides, prevalence of depressive frustration.

In our opinion, one of significant factors of growth of suicide activity among children and teenagers in modern conditions is the distorted formation of ideas of death which is connected with social, economic, technogenic changes in society.

Uncontrolled introduction into the life of teenagers the images of subculture foreign, nonconventional religious beliefs, sectarianism, availability of information about the ways of suicides, the description of experiences of mentally unhealthy people in the Internet, accompanied by promotion of the cult of death, unisex love, low-value of life noted recently lead to decrease in an anti-suicide barrier and deformation of moral ethical principles. The youth environment with the increased readiness "absorbs" the imposed postulates which are the pathological basis for development of autoaggressivness, including suicide behavior.

On materials of posthumous forensic psychiatry evolutions we have analyzed 16 cases of suicides of teenagers (11 girls and 5 boys) at the age from 12 till 16 years made in 2011-2019 in Smolensk region.

All children were brought up in incomplete families. Financial positions of families were sufficient. Earlier nobody from these persons who committed a suicide asked for the psychiatric help. The suicide conflict lasted for almost 6 months (only some hours in one case) which, as a rule, had the interpersonal or mixed character. The analysis of teenager's motives of suicides revealed out a tendency to their combination that complicated diagnostics of degree of expressiveness of suicide risk. Characteristic combinations of motives were the following: an avoiding appeal and a protest appeal, not typical for the teenager's suicide period in all studied cases verbal and nonverbal signs of accruing suicide intentions (donation of personally significant things, writing of farewell notes, drawings, messages in social networks, the "last" calls by the mobile phone) were noted. In 30% of cases suicides were made in alcoholic intoxication. All teenagers had affective frustration of easy and moderate degree the expressiveness allowing in sufficient volume to carry out the daily duties before a suicide. The lost girls tried to involve in the suicide act their girlfriends that refused to carry out the suicide plans in the last minute.

Studying the age features of formation of suicide behavior, the all-round analysis of suicides of teenagers and children is necessary for the development of organizational forms and methods of their prevention, the differentiated tactics of early prevention, for the correction of mental disorders, being accompanied by the development of suicide behavior, and also for the prevention of incorrect reflection of a subject of suicides in mass media and in the Internet.

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# INTEGRATIVE GROUP PSYCHOTHERAPY FOR PANIC DISORDER IN THE STATIONARY

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Panic disorder is considered to affect from 2 to 6 percent of population at some point of their life. In many ways, the decreasing life standards often play a key role in diagnosing panic disorder. For instance, the unemployment rate among people with PD amounted to 25 per cent.

A comprehensive treatment of panic disorder involves not only an appropriate pharmacologic treatment but also a wide array of psychotherapy such as sessions of family, behavioral therapy and relaxation.

However, cognitive behavioral therapy (CBT) is considered to be the most essential option.

**The Research purpose:** To determine the efficiency of integrative group therapy in a comprehensive treatment of PD in the stationary with different variations signs and symptoms.

Summary:

- Integrative group therapy improved the efficiency of psychopharmacologic therapy in the stationary.
- Integrative group therapy accurately improved the efficiency of psychopharmacologic therapy, related to restructuring of catastrophic cognitive distortions and decreasing anxiety, measured by the Anxiety Control Questionnaire and the Anxiety Sensitivity Index.
- Integrative group therapy improved the efficiency in treating agoraphobia, measured by the Mobility Inventory.
- The patients, treated by Cognitive behavioral and, in addition, pharmacologic therapy, showed more stable effects in their anamnesis than the patients, treated by pharma only. Moreover, cognitive behavioral therapy minimized relapses of the first group after abolishing of medical treatment up 80% in comparison with 60% in the second group.

## FORESIGHT-SESSION: "HEALTH CARE SERVICE FOR CHILDREN WITH AUTISTIC SPECTRUM DISORDERS"

### Natalia Ustinova, R.N. Terletskaya & E.V. Antonova

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**Background:** Autism Spectrum Disorders (ASD) are a global problem due to the high prevalence and significant health and social consequences. All over the world, people with ASD continue to face major challenges including social stigmatization, isolation and discrimination, and that children and families in need often have poor access to appropriate medical support. It's time to state about needed of reorganization of health care services for children with ASD.

Aim: Strategic planning of the development of appropriate medical support for children with ASD.

**Subjects and methods:** A 4-hours foresight-session "Health care service for children with autistic spectrum disorders" was held with the support of the autonomous non-profit organization "Center for Autism Problems" and non-governmental organization "Contact". The session was moderated by a business coach of SAP - a global company and a leader in the Russian business solutions market. During the session, 8 working groups were created, each of which included representatives of parents (parents of children with ASD) and doctors (psychiatrists, neurologists, pediatricians, gastroenterologists, public health specialists) - from 9 to 11 people in each group. The main problems of the health care service for children with ASD were discussed and solutions were introduced by each group. Finally a consolidated strategy has been developed for the reorganization of health care service for children with ASD.

**Results.** Key problems of health care for children with ASD were identified and the solutions were outlined.

1. Lack of an early identification system for autism spectrum disorders. There was an opinion which was supported by the parents and the medical societies, that pediatricians are not familiar with the signs of autism. There were cases when parents concerned about delaying and deviations in the child's mental development, but pediatrician reassured that "don't worry," or "boys begin to talk later." Parents had to insist on a proper medical examination of their child.

2. Stigma. Despite the positive changes in the mental health care in recent years, most parents rate it as unsatisfactory. Continuing separation of psychiatric and other types of medical care is contrary to the principles proclaimed by WHO. The main troubling for parents with newly diagnosed "ASD" were "registration system". For those who had experience with psychiatric services, dissatisfaction caused unjustified hospitalizations, especially the common practice of hospitalizing a child in a psychiatric hospital without a parent. Additionaly parents were not satisfied in psychiatric care due to unjustified prescription of antipsychotics, often in high doses. At the same time, interventions that are proven and recognized throughout the world (for example, ABA-therapy) are not offered by psychiatrist. Some parents reported that they were forced to "fight for the diagnosis of autism." Psychiatrists with whom they had to deal, prefer the diagnosis of "mental retardation", ignoring the deficit in social communication and specific behavioral pattern. Misdiagnosis leads to the fact that children do not receive adequate educational services, since rehabilitation focuses solely on the problem of quantitative reduction in intelligence. In addition, parents convinced by a doctor in the absence of autism do not show the necessary efforts to rehabilitate a child with ASD. However, it is established that the family educated in the problem of autism is the key to the effectiveness of therapeutic interventions.

3. Insufficient health care service for children with ASD. There were indicated numerous problems associated with ASD health care. For example, problems can be as late diagnosis of some rare diseases, as well as the inability to treat caries due to insufficient staff training. Parents complain that they hardly manage to attract the attention of specialists to the somatic problems of their children, for example, to gastrointestinal issues (selectivity in food, constipation, etc.). However, it is known that the prevalence of gastrointestinal disorders in children with ASD is 4 times higher than that of their peers with normal development. At the same time, proper treatment of these disorders reduces the intensity and frequency of behavioral disorders. Children with ASD often cannot receive proper health care both in psychiatric or pediatric care services. Psychiatric services are not focused on a comprehensive medical examination. Some symptoms, which may indicate the need for in-depth examination (distorted appetite, physical discomfort, sleep disorders), are traditionally considered only within the framework of a mental disorder. In pediatric services problems are associated with complexity of medical comorbidities in autism, atypical clinical features. Additionally, the staff is not trained enough to conduct diagnostic and therapeutic interventions for children with ASD.

**Conclusion:** Strategic planning for the improvement of health care for children with ASD should include the following measures:

- Development of the system of early identification of ASD. Using of special questionnaires in primary health care to identify a risk group and risk factors. Special training for district pediatricians in the field of developmental disorders and ASD, focus of health care for this children.
- The development of personalized and multiprofessional approach and taking into account all the clinical signs.
- Comprehensive medical examination of children with developmental disorders (including ASD) in pediatric (non-psychiatric) medical services with the involvement of a multidisciplinary team of specialists.

The first step is the approval of the Ministry of Health of Russian Federation to conduct a project "The Model of multidisciplinary health care for children with ASD in paediatric setting" by National Medical Research Center for Children's Health (laboratory of social paediatrics).

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# A MULTIDISCIPLINARY APPROACH TO THE MANAGEMENT OF PATIENTS WITH AUTISM SPECTRUM DISORDERS

### Natalia Ustinova, R.N. Terletskaya, L.M. Kuzenkova, T.E. Borovik, T.V. Bushueva, E.V. Antonova & I.V. Vinyarskaya

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**Background:** According to the WHO, 1 child in 160 in the world has an autism spectrum disorder (ASD). Moreover, it is indicated that in some well-controlled studies, significantly larger numbers are reported.

In recent years, ASD studies have not being seen solely within the narrow framework of child psychiatry. There are number of works which indicate to concomitant (non-mental) disorders in patients with ASD, that have a significant impact on the behavior of patients (disorders of the digestive system, allergies, pain, physical discomfort etc.). The need for enhanced therapeutic approaches in the healthcare delivery to children with autism is becoming increasingly apparent. Despite significant efforts to improve the delivery of health-care services for children with ASD, there is still no proper continuity in work between psychiatric and pediatric institutions in provision of medical aid. As a consequence of this is an unacceptable gap in the health-care services delivery, creating potential problems of socialization and habilitation of such children.

**Purpose:** Justify approaches to the development of a model of multidisciplinary support for children with ASD.

**Subjects and methods:** The electronic databases of scientific information Medline, Web of Science, Scopus, PubMed, Cochrane Database of Systematic Reviews were used to search for articles published in peer-reviewed scientific journals devoted to issues of concomitant non-mental disorders in children with ASD. The existing domestic clinical guidelines and standards of specialized medical care for children with common disorders of psychological development (autism spectrum) were analyzed. The profile experts (pediatricians, neurologists, genetics, gastroenterologists, nutritionists, allergists, immunologists and psychiatrists) were involved to the evaluation of the received information. According to their assessments the approaches to the development of multidisciplinary support model for children with ASD have been developed.

**Results:** From the end of the twentieth century to nowadays, the growing interest in the problem of concomitant diseases connected with ASD is reflected in a number of scientific publications devoted to this topic. The direct connection of disorders (changes) of behavior in children with ASD has been demonstrated in studies that had been focused on such conditions as gastrointestinal disorders, allergy, premenstrual syndrome, otitis etc. There were indicated that behavioral disturbances often occur due to a pain and discomfort that accompany a somatic illness.

A high prevalence of epilepsy in patients with autism is well known. According to various studies these figures are from 20% to 50%. The high probability of such combination is taken into account in Russian clinical guidelines and standards of specialized medical care for children with common disorders of psychological development (autism spectrum).

Another situation arises in relation to the frequency of other comorbidities, which are not mentioned in the clinical guidelines and treatment protocols. For example, recent studies are increasingly pointed to metabolic abnormalities with ASD, primarily mitochondrial dysfunction, especially in cases of socalled regressive autism. It is important to emphasize that psychiatric diagnosis, which corresponds to ASD, does not exclude the presence of metabolic and other diseases. It must be remembered by all professionals involved in providing medical care to children.

The high prevalence of gastroenterological disorders in children with ASD (up to 84%) is confirmed by a large number of studies. Meanwhile, the existing clinical guidelines (treatment protocols) do not pay due attention to this. Moreover, eating disorders ("selective appetite", "perverted appetite", "light eater") are often regarded as psychopathological symptoms. Consequently, additional studies are not conducted, concomitant disorders are not established, and patients do not receive adequate medical care. Meta-analysis published in 2014 in journal of pediatrics, shows that disorders of the digestive system are found in children with ASD 4 times more often than in "neurotypical" peers. The most common of them are diarrhea, constipation, gastroesophageal reflux, flatulence, pain or discomfort in the abdomen. All these disorders can significantly affect the behavior of a child with ASD.

Problems associated with digestion often involve the selection of special diets for children with ASD. Despite the fact that issues related to nutritional characteristics require additional scientific researches, parents of patients with ASD, getting acquainted with a few publications, often make their own decision on the use of a gluten-free and casein-free diet when feeding their children. Therefore, a psychiatrist and pediatrician (gastroenterologist, nutritionist) needs to have sufficient information on these issues to minimize the possible adverse effects of nutritional restrictions on the child and to promote family adherence to medical support for each case of ASD.

According to the experts, the underestimation by medical specialists of concomitant somatic diseases in children with ASD is due to the distorted ideas that any forms of these patients behavior are determined by their psychopathological features. In addition, some authors point to frequent atypical clinical manifestations of comorbidity in such children. It is also obvious that many patients with ASD simply cannot adequately express (due to the age, difficulty in communication, verbal or intellectual disorders) their complaints, to localize the pain or unpleasant sensations.

This leads to another problem: in medical institutions, doctors, in many cases, are not familiar with the specifics of examining children with ASD, find it difficult to establish contact with them. On the other hand, there is no system for preparing a child with ASD to undergo medical procedures and manipulations, which can make a diagnostic more difficult. The timely correction of concomitant somatic disorders can lead to reducing of the main symptoms of autism. A psychiatrist must be very careful about somatic deficiencies of his/her patients and insist on a thorough medical examination of every child with ASD, especially since many of these comorbidities can be cured.

**Conclusion:** Investigation of influence of a wide range of comorbidities on the symptoms of ASD remains the focus on extant and projected in the coming years research. The data obtained in the framework of these studies should be used in practical activities. It is necessary to develop the skills of recognizing signs of trouble, pain or discomfort in people with ASD by medical specialists of different profiles. At the present stage, it is necessary to take into account accumulated scientific information for the reorganization of medical care for children with ASD, to ensure a multidisciplinary personalized approach to diagnosis and treatment.

In the Federal State Institution "National Medical Research Center for Children's Health" of the Ministry of Health of Russia, as part of the state task for conducting applied research, a model of multidisciplinary support for children with ASD has been developed. This model is being tested in the conditions of the children's clinical and diagnostic center, with the involvement of a poly-professional team. The results of this work are planned to be used for clinical guidelines that define the main aspects of multidisciplinary medical support for children with ASD.

## THERAPY MISTAKES OF SUICIDAL BEHAVIOR IN PSYCHIATRIC HOSPITALS

### Sergey Vaulin & Marina Alekseeva

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Suicides and suicide attempts in psychiatric clinic are of relatively small proportion, but they are a clinically significant part of suicide behavior. Drug therapy of depressions at patients with the heaviest forms of suicide behavior and high suicide risk is carried out in the hospital. Adequately selected therapeutic strategy in this case is one of the major anti-suicide factors. At the same time, the incorrect choice of psychopharmacotherapy can significantly increase suicidal feelings of the patient, lead to realization of the remaining suicide plans.

The research of the objective was an improvement of the suicidological help in psychiatric hospitals by identification of therapeutic risk factors of suicide behavior during treatment in a psychiatric hospital and in early terms after discharge from the hospital. To achieve the objectives of complex psychiatric and klinikopsychological examination of patients with suicide attempts was conducted during treatment in psychiatric hospitals of Bryansk and Smolensk in 2012-2014 and in early terms after discharge from the hospital. The controlled group consisted of patients with mental disorder, but without suicide behavior, comparable on gender and age and nosological structure. Criteria for inclusion were the existence of suicide behavior during treatment in a psychiatric hospital or in early terms after discharge from the hospital according to the informed patient's consent.

42 episodes of suicide behavior, were studied 11 episodes were suicides. Average age of patients was  $35.3\pm13.2$  years. 46% of cases of suicide behavior were registered directly in a hospital, 4% - of them were during medical holiday, 30% - were on treatment in a day hospital and 20% - within were 7 days after discharge from the hospital. In the analysis of a temporary factor, two critical moments for realization of suicide intentions were revealed: the first week of hospitalization (23%) and hospitalization terms in a hospital more than 60 days (62%). The analysis of the drug therapy appointed to the patients who committed a suicide attempt revealed the following negative tendencies: absence or rare correction of drug treatment in 80% of cases; a sudden removal of sedative drugs on the eve of suicide activity - 50% of cases; prescription of antidepressants with the stimulating action in the doses exceeding a therapeutic dose in 47% of cases, from which 75% of cases was followed by simultaneous cancellation of sedative and antipsychotic therapy without any justification in the history of an illness.

So, the prognostic significance for risk assessment of realization of suicide plans by patients of psychiatric hospitals is the dynamic evaluation of the suicide status of patients at long hospitalization, at registration during medical holidays and just before an discharge from the hospital. Suicide activity at late stages of treatment is rather often an obvious indicator of an inefficiency of medical actions, and also can testify the development of social disadaptation of the patient in connection with long stay in psychiatric hospital, an invalidization because of progressive mental disorder. The developed medical and rehabilitation programs taking into account the revealed factors will allow to increase quality of the suicidological help by decrease of level of suicide activity and the prevention of hospital suicides.

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## ABILITIES OF COGNITIVE AND SOMATIC STATUS'S CORRECTION IN PATIENTS WITH ARTERIAL HYPERTENSION AND RISK FACTORS FOR KIDNEY DAMAGE DURING THE SANATORIUM TREATMENT

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**Background:** The high prevalence of hypertension and chronic kidney disease (CKD), as well as their impact on the formation of cognitive impairment, which significantly affect the quality of life of patients, forced to look for new ways of early diagnosis, treatment and prevention of these diseases. It seems rational to organize treatment and preventive measures of patients with hypertension at the sanatorium stage, but its scientific justification is fragmentary.

The aim of the study is to assess the dynamics of correction of cognitive and somatic status of patients with hypertension and CKD risk factors in the process of sanatorium treatment.

Subjects and methods: 200 patients (114 women, 86 men, mean age 55±1.2 years) with a diagnosis of essential arterial hypertension of 1-2 stage were examined and treated in FSBI «Podmoskovye» United Sanatorium (average term of treatment 16.4±3.7 days). Patients underwent a basic program for the treatment of cardiovascular diseases, which included consultations of doctors-specialists and complex medical procedures (group and individual gymnastics in the pool and in the gym, hand massage, swimming in the pool, walking including Nordic walking, magnetotherapy, electrotherapy, laser therapy, balneotherapy, including baths and showers, individual and group psychotherapy, diet, xenon therapy, acupuncture). Patients were examined in the first 1-2 days after arrival at the sanatorium and 1 day before departure. The study included the following methods: general clinical examination (anthropometric indicators, daily monitoring of arterial pressure, electrocardiogram), clinical laboratory tests (blood biochemical parameters, including creatinine level), assessment of risk factors for CKD (urine analysis for albuminuria, glomerular filtration rate), neuropsychological tests (test of 10 words - verbal memory, 5 figures - visual memory, Schulte table - voluntary attention, the Counting - rate of mental efficiency's speed, scales MMSE, FAB). Statistical processing was carried out using the software package SPSS Statistics 18.00. Criteria were used U-Mann-Whitney,  $x^2$  Pearson's, correlation analysis Spearman, regression analysis, factor analysis, relative risk (RR).

Results: 104 (52%) patients with hypertension (group 1) were found risk factors for CKD, which, according to the recommendations by KDIGO and the Scientific society of Nephrologists of Russia, are reducing the level of glomerular filtration rate (GFR) less than 90 and more than 60 ml/min/1.73 m<sup>2</sup> and increasing albuminuria (AU) in the range of 10 to 29 mg/L. 96 (48%) of the remaining patients (group 2) were not observed signs of kidney damage. Prior to the start of sanatorium treatment, patients in group 1 compared to patients in group 2 had a significantly higher level of mean blood pressure. In group 1, the mean systolic blood pressure (SBP) was 148.3±8.6 mmHg., diastolic blood pressure (DBP) 94.8±8.8 mmHg. In group 2, the average level of SBP 141.4±7.2 mm Hg., DBP 85.3±6.1 mm Hg. In group 1 significantly lower mean GFR (69.1±3.4 ml/min/1.73 m<sup>2</sup> and 96.5±4.5 ml/min/1.73 m<sup>2</sup>, respectively) and higher creatinine level (87.9±4.8 mmol/L and 71.7±3.2 mmol/L, respectively). In group 1, there was a significantly higher number of overweight patients (average BMI body mass index  $36.7\pm3.2$  kg/m<sup>2</sup> and  $32.1\pm 2.9 \text{ kg/m}^2$ , respectively). In group 1, higher average total cholesterol (6.6±0.7 mmol/L and 6.1±0.9 mmol/L, respectively), low-density lipoproteins (LDL) level (4.8±2.9 mmol/L and 5.0±2.6 mmol/L, respectively) were found. Among patients of group 1 compared with group 2 patients noted significantly lower levels of verbal memory, as short-term (6.3±1.4 b. and 7.7±1.2 b.), and delayed memory (4.5±0.8 b. and 5.6±1.5 b. respectively). The level of visual memory was within the normal limits in both groups (4.7±0.4 b. and 4.8±0.1 b.). In group 1 patients, the rate of mental efficiency's speed (81.8±5.9 seconds. vs. 67,7±4.5 seconds.) and concentration of voluntary attention (75.1±5.7 sec. vs 71.4±6.2 sec.) were significantly worse than in group 2 patients. The average score of the MMSE scale among patients of group 1 (24.8±1.2 b.) corresponds to the indicator of moderate cognitive impairment, in group 2 this indicator is close to the border of the norm (26.9±1.3 b.). Indicators of the fab frontal dysfunction scale FAB are within the normal range (16.0±0.3 b. and 16.7±0.8 b. respectively). After a course of sanatorium treatment in patients in both groups positive dynamics on the majority of the studied indicators was stated. In both groups significantly improved SBP and DBP (group 1: SBP 139.2±3.4 mmHg., DBP 91.6±6.2 mm. Hg.; group 2: SBP 135.5±5.2 mm Hg., DBP 84.4±5.2 mmHg.), BMI (32.8±2.6 kg/m<sup>2</sup> and 29.9±2.4  $kg/m^2$ , respectively), total cholesterol level (6.6±0.7 mmol/L and 5.8±0.5 mmol/L, respectively). Also in patients with hypertension and risk factors for CKD significantly improved the level of GFR from 69.1±3.4 ml/min/1.73 m<sup>2</sup> to 74.8±4.1 ml/min/1.73 m<sup>2</sup>, reduced levels of AU from 14.8±1.7 mg/L to 11.9±1.2 mg/L with creatinine level from 87.9±4.8 mmol/L to 85.4±3.8 mmol/L. These data suggest the weakening of the influence of CKD risk factors on physiological processes in patients with hypertension. Among the patients in both groups showed improvement in cognitive processes in growth of short-term verbal memory  $(7.6\pm1.1 \text{ b. and } 8.5\pm2.1 \text{ b. respectively})$  and delayed memory  $(4.9\pm0.2 \text{ b. and } 6.2\pm1.1 \text{ b. respectively})$ , improvement of concentration and volume of voluntary attention ( $70.4\pm3.7$  sec. and  $64.3\pm5.2$  sec.), increasing the mental efficiency's speed (76.6±4.6 seconds and 65.2±5.8 sec. respectively.) In group 1, patients with hypertension and CKD risk factors showed significant improvement in cognitive processes, according to the results of the complex scale MMSE (26.9±2.3 b.). In patients of group 2, the average value of this scale passed into the normal range (27.4±0.5 b.). The index of frontal functions of the FAB scale significantly improved only in group 1 (16.9±0.4 b.).

According to the 95% confidence interval relative risk calculation, patients with hypertension and CKD risk factors have a 1.47 times higher risk of cognitive impairments than patients with hypertension only.

**Conclusions:** There is a tendency to reduce cardiovascular and renal risk without canceling or changing drug therapy in combination with improved cognitive functions in patients with hypertension in the process of complex multifactorial sanatorium treatment.

## SCHEMA THERAPY: EVIDENCE BASED TREATMENT FOR CHALLENGING MENTAL DISORDERS

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Schema therapy (ST) was developed as a transdiagnostic approach for treatment challenging clinical disorders. It also provides disorder specific models for most personality disorders (PD). There are growing number of evidence that show that ST model is very effective for patients with borderline personality disorders (BPD), antisocial personality disorder (ASPD), all cluster C personality disorders. Good results are also reported by number of researchers for chronic depression, post- traumatic stress disorder, including complex PTSD, eating disorders, and complex obsessive compulsive disorders.

Schema therapy derives from cognitive-behavioral therapy (CBT) and considered by majorities of psychotherapists as a third wave CBT approach. ST was developed by Jeffrey Young (student of Aaron Beck) in 2003 for patients, which did not respond to standard CBT. These patients often had a comorbid personality disorders and showed complex, rigid, and chronic psychological problems in emotion regulation and in interpersonal relationships, which in most cases could be followed back into their childhood. These problems also impaired the psychotherapeutic process as those patients had difficulties in forming a collaborative relationship with the therapist and could not be reached with standard CBT techniques due to intensive emotional reactions and coping strategies such as avoidance or surrender. In order to solve these clinical challenges Young integrated ideas and techniques from other theoretical orientations into a classical CBT frame (attachment theory, Gestalt therapy). A strong emphasis was placed on the biographical aspects for the development of maladaptive psychological patterns through traumatization in childhood and frustration of basic childhood needs. The therapeutic relationship was conceptualized as "limited reparenting" meaning that the therapist creates an active, caring, parent-like relationship with the patient.

The major goal in ST is helping patients to understand their emotional core needs and learn ways of getting needs met in an adaptive manner or to help them deal with the frustration if needs cannot be satisfied. This requires breaking through long-standing emotional, cognitive and behavioral patterns, meaning change of dysfunctional schemas, coping strategies and modes.

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# PSYCHOPHARMACOTHERAPY OPTIONS FOR PATIENTS WITH ORGANIC BRAIN DAMAGE

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**Introduction:** Despite considerable efforts of scientists and medical practitioners, neither treatment standards nor complete recommendations for various mental disorders in patients with organic brain damage have been developed so far.

The specific strategies of choice that increase the effectiveness of pharmacotherapy can be: a) considering the level of brain damage (stem, subcortical, hemispheric), b) stimulating interhemispheric connectivity, c) impacting a "weak" neurotransmitter component by stimulating or inhibiting separately different (choline, glutamate, dopamine and GABAergic) systems.

However, a main criterion of drug choice has been and remains clinical one which provides a pharmacological strategy needed in the patient's current state, with identifying not only negative symptoms of mental disorders, but also productive psychopathological symptoms produced by a deficient (due to brain damage) functional system to enable a coherent neuropsychic activity.

**Goal:** To find clinical options relating to the choice of therapeutic strategy for patients with mental disorders due to organic brain damage.

**Subjects and methods:** Treatment and side effects were analyzed during 1613 courses of psychotropic medication administered to 365 patients with traumatic or neoplastic brain damage.

**Results:** After examining the contingent of patients, the following treatment options were suggested for various clinical situations:

1. Emerging from the states of inhibited consciousness (unconscious states, various types of mutism, states with severely limited contact) can be accelerated by neuromethabolic, primarily neurotransmitter, means. If a blockade of voluntary activity is followed by reduced muscle tone, weakened reflexes and sensitivity, Ipidacrine is most effective at a dose of 20 to 120 mg; with increased tone and reflexes, Amantadine at a dose of 100 to 400 mg is a drug of choice; with hyperesthesia, hyperkinesis, vegetative paroxysms, or unfocused motor agitation, Aminophenylbutyric acid at a dose of 500 to 3000 mg is preferable.

2. Consciousness reintegration (in cases of confusion, severe amnestic syndromes) is more probable during the treatment with GABAergic agents (Aminophenylbutyric acid at a dose specified above, D-, L-hopantenic acid at a dose of 500 to 2000 mg per day) and polypeptide drugs (Semax, Selank, Cortexin).

3. Cognitive disorders in cases of clear consciousness regress more quickly and efficiently, if the impact of medication specific to functions of the left or right brain hemisphere is taken into account. With left hemispheric dysfunction, Ipidacrine, Donepezil, Memantine are more effective; with right, Ethylthiobenzimidazole, Aminophenylbutyric acid and D-, L- hopantenic acid, as well as Semax. It is also necessary to consider the patient's profile of personal asymmetry, as side effects and paradoxical reactions are more often found in patients with motor, sensory or family left-handedness.

4. Asthenic disorders are more likely to regress, if their specific clinical manifestations are taken into account. Hyposthenia with weakened reactivity to the environment, decreased sensitivity, difficulty in focusing attention, excessive sleepiness is better treatable by nootropics with a stimulating effect (Piracetam, Pyriditol); hypersthenia with excessive reactivity, hyperesthesia, difficulty holding attention, dyssomnia due to anxiety, "stream of thoughts", by tranquility nootropics (Aminophenylbutyric acid and Selank) or Tetrametiltetraazabicyclooctandion, a daytime tranquilizer.

5. Psychotic disorders are most often treated by neuroleptics, with preference to atypical ones due to a lower probability of side-effects. In case of persistent unfocused agitation, Quetiapine is administered at a dose of 50 to 300 mg per day; if behaviour is affected by psychotic disorders (hallucination, delusion), Risperidone at a dose of 1 to 6 mg per day.

6. Aggression is eliminated, depending on the clinical context, by non-benzodiazepine tranquilizers (Aminophenylbutyric acid, Buspirone, Tetramethyltetraazabicyclooctandione), valproates or adrenoblockers. Only if those are inefficient, small doses of neuroleptics can be used: Periciazine (preferably in drops, up to 10-15 mg per day) or Risperidone (up to 1-2 mg per day).

7. Emotional and neurotic disorders (depression, anxiety and phobia) are treated with tranquilizers and antidepressants. To avoid multiple side effects, serotonergic drugs (Rexetine, Citalopram, Escitalopram, Vortioxetine), dual-action drugs (Venlafaxine, Duloxetine, Mirtazapine) or others (Agomelatine) should be preferred over tricyclic antidepressants. For the same reason, tranquilonootropics (Aminophenylbutyric acid, Selank) or other non-benzodiazepine drugs (Buspirone, Tetramethyltetraazabicyclooctanedione, Hydroxyzine, Fabomotizole) should be used whenever possible instead of benzodiazepines (Diazepam, Alprazolam, etc.).

**Conclusion:** The further collecting and compiling of clinical data in patients with organic brain damage are necessary to define and develop the options listed above. It will enable to conduct theoretically and practically well-grounded randomized clinical trials and, thus, to formulate recommendations and standards for its differentiated pharmacotherapy.

# CONSEQUENCES OF SEVERE NEUROTRAUMA OF CHILDREN: THE SPECIFICITY OF RESTORING MENTAL ACTIVITY TO MINIMAL CONSCIOUSNESS (INTERDISCIPLINARY CONTEXT)

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**Background:** Severe neurotrauma in childhood is a serious cause of neurological, motor and mental consequences. In the acute period of craniocerebral injury different variants of disturbances of consciousness and mental activity in accordance with various age groups of children may manifest, which requires special conditions of psychiatric care and timely psychological and educational correction to restore the psychophysical potential of the child.

The effectiveness of the rehabilitation of children with acute severe brain damage depends on the comprehensive efforts of both specialists and parents (adults close to the child), whose efforts are aimed at preventing the limitations of life, social alienation and improving the child's quality of life.

An integrated approach, which includes differential diagnostics and qualified specialist assistance is meant to improve the effectiveness of rehabilitation programs and help the child to adapt to the regular life routine.

Aims: to identify the specificity of mental activity in the recovery of children in minimal consciousness after acute severe neurotrauma.

**Subjects and methods:** 104 children under 18 years of age with severe neurotrauma (brain injury, hypoxia, hydrocephaly) admitted for treatment and rehabilitation. Methods: clinical, psychopathological, psychological and educational; in addition - diagnostic scales, questionnaires.

**Results:** Two main groups of patients are identified according to the level of consciousness: the 1st group - 37 children (35.5%), the minimum consciousness "+"; Group 2 - 67 children (64.5%), the minimum consciousness "-". In each of these groups, specific manifestations of mental activity were identified taking into account differentiating features: rate of recovery, the severity of emotional, motor and cognitive processes; spontaneous/involuntary reactions (execution of instructions); productiv responses to stimulation.

In the first group of patients (35.5%) - the consciousness is minimal "+". A smaller part of children (28%) was characterized by an average rate of recovery, inertness of emotional and cognitive processes in addition to aspontaneous behavior and the motor activity, with voluntary reactions and productive responses to sensory and tactile stimulation. Most of the children from this group (72%) had a reduced recovery rate on the background of emotional and motor functions irritability, difficulties in cognitive processes with unproductive voluntary actions and responses to stimulation.

In the second group of patients (64.5%) - the consciousness is minimal "-". A smaller part of children (24%) was characterized by a reduced rate of recovery, hyperactivity and excitability of emotional manifestations, inhibition of cognitive processes with unproductive stereotypical actions and responses to stimulation. The majority of children from this group (76%) demonstrate low recovery rates, persistent inertness of emotional and cognitive processes, aspontaneous behavior with a weak expression of responses to stimulation.

**Conclusion:** It is identified the specificity of psychic activity during recovery in children with acute severe neurotrauma in the minimum consciousness in accordance with the differentiating features: by recovery rate; by variuos degrees of emotional, motor and cognitive processes; by the advantage of voluntary or involuntary reactions to the instructions; by opportunities for productive responses to stimulation. Analysis of the specificity of mental activity supports a differentiated approach to the interdisciplinary tasks of children rehabilitation.

**Keywords:** neurotrauma - mental disorders - children's rehabilitation - recovery of consciousness - interdisciplinary approach - minimal consciousness - traumatic brain injury

# ANALYSIS OF PSYCHOPHARMACOTHERAPY OF OPIOID DEPENDENCE SYNDROME AT CONSTANTLY CHANGING STAGES OF THE TREATMENT PROCESS WITHIN A TEN-YEAR PERIOD

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**Background:** Despite the different pharmacotherapy regimens, opioid withdrawal syndrome (OWS) is associated with significant risks of complications. Arresting this condition remains one of the important problems of addiction medicine. Two main schemes (protocols) for arresting OWS have proven their efficacy, i.e. clonidine scheme and buprenorphine protocol. On the territory of the Russian Federation, treatment of opioid dependence syndrome begins with the single-step drug withdrawal. The use of a "substitution therapy" is prohibited. Clonidine, i.e. an alpha-2-adrenergic blocking agent, inhibits adrenergic excitation. It impacts mainly the OWS's somatic and vegetal component. It weakly affects mental disorders and does not drowse. At doses necessary to suppress opiate withdrawal symptoms, it causes persistent hypotension, bradycardia, decreased stroke volume, and often conduction disturbance in the AV node. The therapeutic concentration of the drug is 5 ng/ml, while the toxic concentration is 15 ng/ml. The main disadvantage of the clonidine protocol is a pronounced central deprimative effect. In the structure of morbid attraction to the drug, there predominate affective disorders of the depressive spectrum. Manifestations of the algic component are a trigger for affective disorders and behavioral reactions that require immediate therapeutic intervention.

The purpose of this study is to reconstruct some errors in the complex treatment of opioid withdrawal syndrome. Clonidine (clopheline up to 900 mcg/day) was prescribed to patients as the main scheme (protocol) for arresting OWS, in combination with basic and symptom-controlled therapy, which included benzodiazepines, GABA-ergic anxiolytics, typical and atypical antipsychotics, and antidepressants.

**Subjects and methods:** The study was conducted inpatient. Criteria for inclusion into the study: diagnosed opioid dependence according to ICD-10; age 18-60 years; initial phase of opioid withdrawal syndrome; treatment period 2000-2009. Exclusion criteria: established diagnosis of psychotic disorder, syndrome of dependence on two or more chemical agents, somatic pathology at the stage of decompensation, and HIV infection.

75 patients with OWS have been screened. 46 people were included into the study.

**Study design:** A simple sampling of 146 completed cases of medical care, followed by an attempt to reconstruct the therapy. The case reports describe 46 patients having opioid withdrawal syndrome (F11.30).

**Methods of statistical analysis:** The research database was conducted using the SPSS statistical package and the double entry technique. To compare the groups as to the indicator of OWS therapy completion, an analysis was conducted on the event of global dropout (OWS therapy). To compare groups for reasons of OWS therapy completion, there were built contingency tables, while Fisher's exact test was used.

**Results:** When analyzing the case histories from 2000 to 2009, the study time was divided into periods from 2000 to 2003; from 2004 to 2005, and from 2006 to 2009. It was during these time periods that therapeutic algorithms were significantly different. Studying the causes of this phenomenon was not part of the research objectives.

The criterion of "Compliance with the stages of treatment" (sequential passage of each stage of inpatient treatment) was selected as the indicator of "Sufficient therapeutic efficacy" of the drug algorithm. Violation of the passage of the stages of treatment is designated as "Disruption of the stages of treatment". When analyzing the results, the disadvantages of therapy that led to the development of complications (development of delirium, refusal of treatment) were taken into account. When conducting clinical trials in accordance with a symptom-regulated protocol, the number of additional prescriptions of drugs that affect the main symptoms of the disease is one of the important indicators of effectiveness.

For the period between 2000 and 2003, typical neuroleptic predominated in treatment regimens. During the period of acute abstinent disorders, they were used in 100% of cases. Antidepressants with a predominantly sedative effect were second in frequency of use. During acute withdrawal symptoms, benzodiazepine anxiolytics were actively used, which corresponded to the pathogenesis of the disease. The use of atypical antipsychotics, anticonvulsants ranks third (Figure 1).

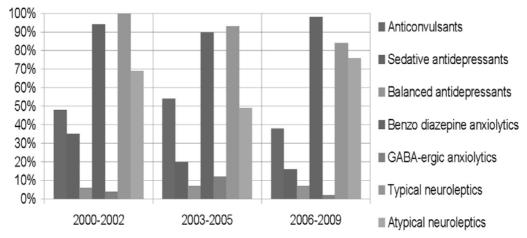


Figure 1. The structure of drug prescriptions for patients suffering from opioid dependence syndrome during inpatients treatment. Period of acute abstinent disorders

In 2003-2005, a high level of typical neuroleptics application remained. Benzodiazepine tranquilizers prevail at the initial stage of treatment. Antidepressants with sedative effect and atypical neuroleptics come third. The use of antidepressants was increasing in the late stages of therapy. In 2006-2009, there was observed a depletion of drug supply and an emphasis on the use of atypical neuroleptics. Typical neuroleptics predominated at the stage of withdrawal symptoms.

In 2003-2005, more refusals were in the later stages of treatment. In 2006-2009, refusals in the early stages of treatment prevailed. The cases of polymedication have been treated separately. Patients with polymedication were more likely to experience intoxication delirium (According to the Fisher criterion: p=0.02, if cases of refusal from treatment are included (but without delirium) in the "without disruptions" group, p=0.026, if only the "without disruptions" group is compared). This result does not contradict the hypothesis that polymedication increases the risk of complications.

**Conclusions:** There is a urgent need to apply an interdisciplinary approach and to consider the OWS within the concept of neuroinflammation. Achieving the maximum effect of the treatment used is possible by monotherapy application, the early use of antipsychotics and neuroinflammation regulators, i.e. SSRI drugs. It is important to observe the principle of minimum sufficiency when prescribing treatment. Polymedication when treating narcological patients is unacceptable, and it can provoke an unfavorable outcome of hospitalization.

Keywords: craving - dependency syndrome - opiate addiction



Dear Colleagues, Dear Friends,

It is great pleasure to invite you to take part in 29<sup>th</sup> Danube Psychiatric Symposium to be held in the beautiful city of Zagreb, the capital of Croatia. The main topic will be "Psychiatry, Medicine and Society: Homo Deus of the 21st Century and Challenges of Mental Health and Personalized Medicine" with special emphasis on predictive, preventive and person centered medicine and comorbidities, as well as on bridging personal, public and global mental health, compassionate society and empathic civilization. Personalized or P4 medicine and mental health have become very challenging and exciting topics of great interest and importance. There is no health without mental health as well as there is no sane, compassionate and prosperous society without public mental health and empathic civilization without global mental health. The way we understand individual, public and global mental health and treat mental disorders is changing rapidly. Digital revolution from the start of 21<sup>st</sup> century is changing significantly all fields of society, science and medicine. As Homo sapiens is a story telling or narrative being, people think in stories and narratives rather than in facts, numbers, graphs and equations. All big stories from the 20<sup>th</sup> century have collapsed and new narratives, including those on psychiatry and mental health, are emerging with a shift from a homo centric to a data centric world view. Emerging techno-humanism argues that Homo sapiens have completed their cosmic task and high technology is going to create a much superior Homo Deus with upgraded physical and mental abilities. Dataism is promising to give all scientists a common language that easily enables them to get insights across disciplinary borders. Big data algorithms informed by a constant stream of data from biometric sensors could monitor our behavior, health and disease 24/7. Collecting, analyzing, combining and applying large quantities of various data may help to get more precise diagnosis and more effective and efficient treatments tailored to individual patients and so promoting personalized medicine instead of block-buster and stratified medicine. Although personalized medicine is still in its infancy age, it opens up new possibilities for providing old dream "right care and treatment to the right person at the right time" into reality. It tends to increase resilience and optimize healthcare for every person at every stage of a disorder, from prevention to personalized treatment.

Four multidisciplinary sessions will be organized within the symposium with challenging topics:

- Comorbidity, resilience, and epigenetics in psychiatry from the perspective of predictive, preventive and person-centered medicine (School of Medicine, University of Zagreb;
- Transdisciplinary integrative approach in psychiatry, personalized medicine, and creative psychopharmacotherapy (Clinical Hospital Centre Zagreb);
- Psychiatry, spirituality, and religion from the perspective of public and global mental health (Faculty of Philosophy and Religious Studies, University of Zagreb);
- Psychiatry, ethics, and politics from the perspective of public and global mental health (School of Public Health "Andrija Štampar" Zagreb).

The symposium will offer up-to-date presentation of some world's and many regional most prominent and distinguished lecturers and researchers. It is expected to gather colleagues from Croatia, Austria, Slovenia, Germany, Serbia, Hungary, Bosnia and Herzegovina, Slovakia, Romania, Bulgaria, Macedonia, Turkey, Russia and Ukraine. The symposium will be a unique opportunity to enjoy in high quality professional communication and share ideas, experience and solutions to challenges in psychiatry and medicine and crucial issues related to mental health in society, region and world. Bringing together multiple disciplines and universities with knowledge sharing is the best way to provide transdisciplinary integrative approach to our understanding and practicing of P4 (personalized, predictive, preventive, participatory) medicine and psychiatry. All accepted presentations will be published in advance in our journal Psychiatria Danubina so that symposium session is going to be organized on the principles of art and practice of learning organization.

We wish you a warm welcome and promise unforgettable and professionally the most valuable experience.

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#### **General considerations**

Psychiatria Danubina is a peer-reviewed open access journal of the Psychiatric Danubian Association, aimed to publish original scientific contributions in psychiatry, psychological medicine and related science (neurosciences, biological, psychological, and social sciences as well as philosophy of science and medical ethics, history, organization and economics of mental health services). Its scope includes mental health in general and all psychological aspects of any branch of medicine, surgery, or obstetrics; and any subspecialty of psychiatry and related clinical and basic sciences.

The specific aim is to promote psychiatry in Danube region countries as well as to stimulate collaboration and joint projects.

Manuscripts are published in English language only. All submitted manuscripts are given equal consideration, irrespective of the country they originate from, as long as the following main criteria are met:

A manuscript is written and prepared according to the Journal's Instructions for authors.

Throughout the entire editorial process, Psychiatria Danubina follows the best practice guidelines given by the Committee on publication ethics (COPE) (available at: *http://publicationethics.org/files/Code\_of\_Conduct.pdf*) and Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly work in Medical Journals by International Committee of Medical Journal Editors (ICMJE) (available at: *http://www.icmje.org/recommendations/*)

Editors at Psychiatria Danubina are committed to ensure the integrity and promote innovative and evidence-based sources of information in order to maintain the quality and ensure the impact of the papers published in our Journal, according to the principles set by Sarajevo Declaration on Integrity and Visibility of Scholarly Publications communication (*http://www.cmj.hr/2016/57/6/28051276.htm*).

#### **Instructions for authors**

Manuscripts must be written in standard and grammatical as well as clear and concise scientific *English*. It is the responsibility of the authors to ensure the quality of the language. The acceptance criteria for all papers are the quality and originality of the research and its significance to our readership.

#### Submission of the manuscript

Submission of a manuscript implies:

- that the work described has not been published before (except in the form of an abstract or as part of a published lecture, review or thesis);
- that it is not under consideration for publication anywhere else;
- that its publication has been approved by all co-authors, if any, as well as by responsible authorities tacitly or explicitly at the institute where the work has been carried out.
  - This must be stated in the Covering letter.

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- Book review;
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The second page should carry on a Summary in the region of 300 words, followed by a list of 3-5 key words or short phrases drawn, if possible, from the medical subject headings (MeSH) list of *Index Medicus* 

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#### 4. Acknowledgements

The source of financial grants and other funding should be acknowledged. The contribution of institutions, colleagues, technical writers or language editors should be noted. Thanks to anonymous reviewers are not needed. If there are no acknowledgements please state so by putting 'None' in the respective section.

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- In the text give the author last name and publication year within parentheses (e.g. Jakovljevic 2008, Sartorius 2009).
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- 1. Svrakic DM & Cloninger RC: Epigenetic perspective on behavior development, personality, and personality disorders. Psychiatr Danub 2010; 22:153-66
- Grant BF, Hasin DS, Blanco C, Stinson FS, Chou SP, Goldstein RB et al.: The epidemiology of social anxiety disorder in the United States: results from the National Epidemiologic Survey on Alcohol and Related Conditions. J Clin Psychiatry 2005; 66:1351-61
- 3. Reiter RJ & Robinson J: Melatonin. Bantam Books, New York, 1995
- 4. Doghramji K, Brainard G & Balaicuis JM: Sleep and sleep disorders. In Monti DA & Beitman BD (eds): Integrative Psychiatry, 195-339. Oxford University Press, 2010

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