The International Stress and Behavior Society (ISBS)
The Ukrainian Society for Biological Psychiatry (USBP)

PROGRAM

The 3rd International Neuroscience and Biological Psychiatry ISBS/USBP Symposium "TRANSLATIONAL BIOLOGICAL PSYCHIATRY"

Kyiv, Ukraine
May 23, 2019

The 3rd International Neuroscience and Biological Psychiatry ISBS Symposium "TRANSLATIONAL BIOLOGICAL PSYCHIATRY"

Venue: Great Conference Hall of the National Academy of Sciences of Ukraine, 55 Volodymyrska Street, Kyiv, Ukraine

08.45-16.00 REGISTRATION DESK OPEN

MORNING SESSION

09.00-09.20 WELCOMING REMARKS: 22 YEARS TO ISBS CONFERENCES – BRIDGING THE "BIOLOGICAL" AND "PSYCHIATRY"
Prof. AV Kalueff (China), Chair, ISBS and USBP President
Prof. OG Syropyatov (Ukraine), RSBP President
Prof. GYa Pilyagina (Ukraine), LOC Chair

09.20-09.30 INDUCTION OF 2019 ISBS FELLOWS

09.30-09.55 ISBS LECTURE 1. PSYCHOGENESIS OF A SELF-DESTRUCTIVE BEHAVIOUR AND DEPRESSION IN ADOLESCENTS. GYa Pilyagina, Shupyk National Medical Academy of Postgraduate Education, Kyiv, Ukraine

09.55-10.20 RSBP LECTURE 2. ALGORITHMS FOR DIAGNOSIS AND TREATMENT OF PTSD IN COMBATANTS. OG Syropyatov, NA Dzeruzhinskaya and EYu Marushchenko, Russian Society for BioPsychiatry, Bogomolets National Medical University, Ukrainian Military Medical Academy, Kyiv, Ukraine

10.20-10.55 USBP LECTURE 3. THE INFLUENCE OF CLINICO-SOCIAL FACTORS ON BUILDUP OF COMPLIANCE IN PATIENTS WITH PARANOID SCHIZOPHRENIA. NA Dzeruzhinskaya and VA Lomtieva, Bogomolets National Medical University, TMO Psychiatry, Kyiv, Ukraine

10.55-11.10 COFFEE BREAK

11.10-11.35 ISBS LECTURE 4. DEVELOPMENT AND PRACTICAL APPLICATION OF GLIAL FORMULA (GF) AND QUANTITATIVE GLIAL INDICES (QGI1-3) TO STUDY CELLULAR STRUCTURE OF THE BRAIN. OM Makarenko, YuB Chaikovsky, FI Petrov and MA Eldomiaty, National Medical University, Kyiv, Ukraine; Department of Human Anatomy and Embryology, Tanta University, Egypt; Taibah University, Saudi Arabia

11.35-12.00 USBP LECTURE 5. PSYCHOSOMATIC RESOURCES IN MANAGEMENT OF ACUTE STRESS: PRACTICAL EXPERIENCE. J Parkhomenko, Shupyk National Medical Academy of Postgraduate Education, Kyiv, Ukraine

12.00-12.25 USBP LECTURE 6. ENGAGEMENT IN AMATEUR SPORTS REDUCES THE LEVEL OF EMOTIONAL BURNOUT AND INDUCES PLASTIC STRUCTURAL CHANGES IN THE BRAIN. S Tukaiev, Laboratory on Theory and Methodic of Sport Preparation and Reserve Capabilities of Athletes, Research Institute, National University of Physical Education and Sports of Ukraine, National Taras Shevchenko University of Kyiv, Institute of Journalism, Kyiv, Ukraine

12.25-12.45 COFFEE BREAK

AFTERNOON SESSION

12.45-13.05 USBP LECTURE 7. WHEN PROFESSIONAL COMMUNICATION IS BECOMING A STRESS (EXPERIENCE OF THE 3RD ANS 6TH-YEAR STUDENTS). O Khaustova, Bogomolets National Medical University, Kyiv, Ukraine

phenomena of "flash-back" are quite rare and are not so emotionally painful. Depressive affect is represented by undifferentiated hypotonia with a distinct anxious-phobic inclusions or dysthymia. The ideational component of the symptom complex is more represented by hypochondriac fixation on bodily sensations and paroxysmal attacks with a pronounced anxiety of waiting for their occurrence than by symptoms of hyperexcitation and the experience of a psychotraumatic situation.

The study of the PTSD clinic in servicemen-combatant indicates a complex psychopathological picture, which can be considered not only as a complete picture of PTSD, but as PTSD, complicated by comorbid mental disorders of the anxiety and affective spectrum with the formation of post-traumatic personality changes. Treatment of such a complex clinical state – PTSD with comorbid disorders, as well as diagnosis, requires a systemic approach. To implement the principle of a systematic approach to the treatment of comorbid PTSD, we used the principles of short-term multimodal psychotherapy, proposed by A. Lazarus (2001). The patient BASIC ID (behavior, affect, sensations, imagery, cognitions, interpersonal relationships, drugs/biological functions) was evaluated. The following important principles are used in therapy:

1) determine if there are significant problems in each of the seven basic ID modalities;
2) together with the client choose three or four main problems that require special attention;
3) if necessary, conduct a medical examination and prescribe the necessary psychotropic and other drugs;
4) if possible, the most adequate, empirically proven effective techniques for working with problems are used.

Successful solution of the problem in one of the modalities causes improvement in other modalities. This approach allows: 1) to influence the multifaceted structure of symptoms of PTSD, manifested in different modalities of human life; 2) to structure the use of methods of psychotherapy related to different modalities, within a single psychotherapeutic process; 3) to simplify and systematize the choice of psychotherapeutic technologies in accordance with the principle of "correspondence of modality of the problem with modality of the method»; 4) develop an individual strategy and flexibly change the tactics of psychotherapeutic influence depending on the current state of the patient and the dynamics of the treatment process; 5) significantly reduce the likelihood of undesirable side effects of therapy and improve the effectiveness of psychotherapeutic care.

Example №1. The modal profile in explosive-dysphoric type of PTSD

Modality of BASIC ID	Proposed treatment plan
deterioration of performance of official duties, irritability, affectability	mask therapy, sand therapy, art therapy
low mood, dissatisfaction with own behavior, self-recrimination, guilt	relaxation, anchoring of resource States
no pleasure from activities that used to be enjoyable	concentration on the most pleasant, visual, auditory and tactile images, affiliation
ideas about the war, the death of comrades	projection in time, representation of yourself in the future, filled with positive emotions and pleasant activities
negative self-esteem and dissatisfaction with others.	elimination of cognitive errors ("always", "all"), use of modal verbs ("should»)
isolation, reduction of social contacts. Home - service	role playing, social skills training
fibromyalgia	The increase in physical activity, walking, herbal sedative analgesics, the rate of valproate, SSRIs antidepressants

Thus, PTSD and comorbid mental disorders in combatant soldiers are complex clinical formations that require systemic and differentiated treatment, including psychopharmacotherapy and a variety of types and techniques of psychotherapy. A systematic approach and the principles of short-term multimodal psychotherapy, used by authors, allowed to develop an algorithm for the diagnosis and treatment of this category of patients.

Literature: 1. Фоа Э.Б., Кина Т.М., Фридмана М.Дж. Эффективная терапия посттравматического стрессового расстройства (Клиническая психология) М.: Когито-Центр, 2005. – 491 с. 2. Лазарус А. Краткосрочная мультимодальная психотерапия. – СПб:.: Речь, 2001. – 256 с.

THE INFLUENCE OF CLINICO-SOCIAL FACTORS ON BUILDUP OF COMPLIANCE IN PATIENTS WITH PARANOID SCHIZOPHRENIA. NA Dzeruzhinskaya and VA Lomtieva, Bogomolets National Medical University, TMO Psychiatry, Kyiv, Ukraine. The interest in the problem of compliance is quite high, since, despite the achievement of pharmacology, the constant entry into the market of new and more advanced medicines, data on compliance with medical prescriptions remains unsatisfactory. This problem is particularly relevant in situations where patients need a long-term treatment. There are a number of pathological conditions in which violation of the treatment regime can lead to severe consequences. These diseases include schizophrenia. The purpose of the work was to study the clinical and social factors that affect the level of compliance to further consider them in the development of psycho-educational programs. Materials and methods: 109 patients with paranoid schizophrenia of TMO "Psychiatry" were conducted with the help of clinico-psychopathological method, structured interview method, PANSS scale, questionnaire for assessing social functioning and quality of life mentally of patients (Gurovich I.Ya., Shmukler O. B., 1998), the scale of medical compliance, which was developed in the NRPNI of VM Bekhterev. Data processing was performed using SPSSstatistics 20. The Pearson coefficient (χ2-square), the significance level ($p < 0.05$), odds ratio (OR) was calculated. Based on the data obtained in the study, three levels of compliance were distinguished: low (14-21 points), middle (22-31 points) and good (32 and more points). After that, the influence of clinical and social factors on the quality of the compliance was studied. It could be distinguished: managed and non-managed factors that affect the compliance. Managed - factors that can be influenced (the severity of clinical manifestations, walks, reading, nutrition, relationships with relatives, communication with others) and not managed

(gender, age, duration of the disease, material situation, availability of clothing). According to the study, the compliance did not depend on the age, sex of patients, and duration of the disease ($p > 0.05$). At a low level of compliance, the frequency of hospitalization was higher – 46.2% ($p < 0.05$). The following clinical factors influenced to the formation of the compliance: cognitive and emotional-volitional deficit, depressive and manic components.

Table 1. The frequency of achieving good compliance depends on the presence of individual clinical factors and their prognostic value.

Indexes	The frequency of achieving good compliance		odds ratio OR (95%ДІ)	p (χ^2)
	The presence of the investigated factor	The absence of the investigated factor		
Cognitive deficit	7/53 (13.2%)	20/56 (35.7)	0.27 (0.10-0.72)	P=0,0065*
Emotional-volitional deficit	9/54 (16.7%)	19/55 (34.6%)	0.38 (0.15-0.94)	P=0,032*
Depressive component	8/43 (18.6%)	19/66 (28.8%)	0.57 (0.22-1.44)	P=0,228
Manic component	5/27 (18.5%)	22/82 (26.8%)	0.62 (0.21-1.84)	P=0,386

As can be seen from the table, the presence of cognitive deficits reduces the rate of achieving good compliance with 35.7% (without cognitive deficits) to 13.2% of patients ($p = 0.0065$). The presence of emotional and volitional deficits also causes a significant reduction in the rate of achieving good compliance to 16.7% compared with 34.6% of patients with good compliance with no emotional and volitional deficit. The depressive component also contributes to a decrease in the frequency of good compliance from 28.8% to 18.6% of patients. A similar pattern with a decrease in the frequency of good compliance is manifested in the presence of a manic component. Given the presence of a pronounced difference in the frequency of good compliance in the presence and absence of these clinical factors, we have identified a prognostic evaluation of these factors for the probability of achieving good compliance. It has been discovered that in patients with cognitive deficits, the probability of achieving good compliance is reduced by 73% (OR = 0.27). In patients with emotional-volitional deficit, the likelihood of a good compliance is reduced by 62% (OR = 0.38). The depressive and manic component, with the probability of achieving good compliance, is reduced by 43% under the depressive component (OR = 0.57) and by 38%, provided that the manic component is present (OR = 0.62), a slightly less adverse effect. Also the effect of social functioning of patients with paranoid schizophrenia on the formation of compliance was studied. In day activity, a tendency towards less reading was observed when reducing the compliance - from 11 (40.7%) patients with good to 6 (23.1%) - with low compliance. Watching TV on the contrary occupied most of the day in a larger proportion of patients with low compliance, which indicates their passive livelihoods. The household was also better suited to patients with good compliance - 10 (37.0%). At the same time, satisfied with the daily activity, on the contrary, there were fewer patients in the group with good compliance, which again indicates their more critical attitude to themselves than other subjects.

In general, there is a significant difference in the frequency of detection of poor material position at different compliance. The maximum incidence of bad position was found in patients with low compliance (57.7%). This is significantly higher than in the middle group (30.4%) and good (29.6%), $p = 0.033$. At the same time, satisfaction with material conditions was almost unchanged in patients with a low and good level of compliance: dissatisfied with the material condition were 17 (65.4%) patients with low compliance and 17 (63.0%) with good. With poor food quality, good compliance was found in 2 (12.5%), with good quality food, high compliance was at 9 (45.0%), $p = 0.035$. That is, the better the quality of food, the better the compliance. Clothing availability was also significantly better in patients with good compliance. It can be assumed that the worse material provision prevented the acquisition of the best medicines, which led to the refusal of treatment through the side effects of medicines. The study of indicators of family interaction showed their influence on the formation of compliance in patients with paranoid schizophrenia. So satisfaction with the situation in the family was significantly higher in patients with good compliance.

Table 2. Satisfaction with the situation in the family in groups with different compliances

Satisfaction with the situation in the family	Groups by compliance, n (%)			
	low	middle	good	In all
Not satisfied	11 (42.3)	9 (16.1)	5 (18.5)	25 (22.9)
satisfied	15 (57.7)	47 (83.9)	22 (81.5)	84 (77.1)
In all	26 (100)	56 (100)	27 (100)	109 (100)

Pearson $\chi^2 = 7.31$, $p=0.025$.

The situation in the family among patients with low compliance was satisfied 15 (57.7%), while with a good compliance - 22 (81.5%). Conflict relationships were also significantly higher in the group of patients with low compliance. In the group with low compliance, conflict relations were in 17 (65.4%) patients, whereas in patients with good compliance - 5 (18.5%). From this it follows that the improvement of family relationships will contribute to better compliance.

Table 3. The nature of the relationship with relatives in groups with different compliances

relationship with relatives	Groups by compliance, n (%)			
	low	middle	good	In all
conflict	17 (65.4)	10 (17.9)	5 (18.5)	32 (29,4)
good	9 (34.6)	46 (82.2)	22 (81.5)	77 (70.6)
In all	26 (100)	56 (100)	27 (100)	109 (100)

Pearson $\chi^2 = 21.43$, $p=0.0001$.

The satisfaction with relationships with relatives was also higher in the group with good compliance.

Table 4. The satisfaction with relationships with relatives in groups with different compliances

The satisfaction with relationships with relatives	Groups by compliance, n (%)			
	low	middle	good	In all
Not satisfied	14 (53.8)	7 (12.5)	6 (22.2)	27 (24.8)
satisfied	12 (46.2)	49 (87.5)	21 (77.8)	82 (75.2)
In all	26 (100)	56 (100)	27 (100)	109 (100)

Pearson $\chi^2 = 16.24$, $p=0.0003$.
Family-restricted circle of communication was in the majority of patients with low compliance - 16 (61.5%).

Table 5. Characteristics of the circle of communication in groups with different compliances

Characteristics of the circle of communication	Groups by compliance, n (%)			
	low	middle	good	In all
Family-restricted circle	16 (61.5)	14 (25.0)	9 (33.3)	39 (35.8)
Varied	10 (38.5)	42 (75.0)	18 (66.7)	70 (64.2)
In all	26 (100)	56 (100)	27 (100)	109 (100)

Pearson $\chi^2 = 10.4$, $p=0.005$.
Conclusion: It has been detected, that the compliance is negatively impacted by both clinical indicators such as cognitive and emotional-volitional deficit, depressive and manic components, and social ones: bad financial situation, conflict with relatives, low activity and limited social contacts. The obtained data should be taken into account when developing psycho-educational programs.

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TRANSCRANIAL MAGNETIC STIMULATION (TMS) TREATMENT IN NEUROPSYCHIATRIC DISEASES. Ö Bektaş, Nuh Naci Yazgan University, Psychology Department, Kayseri, Turkey. Transcranial magnetic stimulation (TMS) is a non-invasive treatment technique approved by the Food and Drug Administration (FDA) for the treatment of Major Depressive Disorder (MDD). TMS is used to investigate and influence brain function by creating electromagnetic fields. In the TMS application, the activity of cerebral cortex beneath the electromagnetic coil placed on the skull is intended to be influenced by regularly given pulses. Using this method, many brain functions such as motion control, speech, learning and memory can be affected. There is no known serious side effect today and it allows the ability to affect the activity in the desired brain areas. The aim of this study was to investigate the effect of TMS on neuropsychiatric diseases. Method of this study is review. According to this review, the success of TMS in the treatment of depression has started to attract interest in the applications for other neuropsychiatric diseases. Compared to other neuromodulation techniques such as Electroconvulsive Therapy (ECT), TMS is generally more tolerable and non-invasive. As a result, TMS has become very important in neurology and psychiatry in recent years due to its increasing importance and usage areas. TMS has increased interest in TMS as a useful tool for the treatment of various neuropsychiatric diseases, given the ability of TMS to modulate neuronal firing in a clinically safe manner by both stimulating and inhibitory means.

COGNITIVE STYLE AND BEHAVIOR. M Uysal, Nuh Naci Yazgan University, Psychology Department, Kayseri, Turkey. Cognitive style is the habitual approach and preferences that people use to organize knowledge and represent it in the mind. It is thought to be determined at birth or in the early stages of human life. Cognitive style examined in two dimensions that named Analytic-Holistic and Visual-Verbal. These two dimensions are independent of each other and the position in one dimension does not affect the other. The Holistic-Analytic dimension defines whether the person is processing information in parts or whole; Verbal-Visual dimension refers to whether the person represents knowledge in the mind verbally or visually. The aim of this study was to investigate the effects of cognitive styles on human behavior. The method of the research is review. There are many studies point out the impact of cognitive style on cognitive processes. Therefore, behavior which is an outcome of cognitive processes, is also influenced by cognitive styles. Researches show that when the stimulies are adjusted according to cognitive styles, the accuracy in the behaviors increases and the response time decreases. On the other hand, when the stimulies are adjusted not according to the cognitive style of the person, it is observed that the errors in behavior increased and the response times also increased. Cognitive style can be used to explain and improve human behavior. It is predicted that if the materials and texts used in education are arranged according to their cognitive style, their learning performance will increase.

SELECTİVE MUTİSM: NEW PERSPECTİVES. M Di Meo, AIMuSe (Italian Association of Selective Mutism), MDM group, Mens Sana in Corpore Sano Association, Italy. **INTRODUCTION:** Selective Mutism is an anxiety disturb that affect children and adults. The incidence is increasing over time. Its estimated to be between 1 and 3%; In Italy we used Cognitive-Behaviourale therapy, since two years ago. With 3 different experiences in the US, we integrated our different methods. **METHODS:** Actually, we work in this way: With children aged 2,5-6 years old: we coach parents and teachers, andò we don't work with children. In an average of 3 months the SM problem is solved almost completely; We can also work using technologies, coaching parents from all over the country. With children aged 7-14 years old: we coach parents and teachers; we use to work with children and then we go to school, to help the child in that context, and the SM problem improves considerably in an average of 5-6 months. **RESULTS AND DISCUSSION:** The results of this treatment, after 2 years of this treatment we have: Reduced considerably the average of treatment: it was 1 year and a half, in the past. Now it's 3-6 month, depending on the age of the child; We can help more people from all the country, using technologies: we have moved from being able to follow 5/6 patients each, per year, to follow 25 patients each year, each. This allow us to help more people, reduce costs and to provide effective tools for parents and teachers. They can better understand how to deal with their child to help him and this favors healing times. **RESEARCH SUPPORT:** This research is actually supported by AIMUSE, MDM group, Italia. It's based on Kurtz's psychology camps, New York and FIU camps, Florida.

THE RELATIONSHIP OF TWO GENETIC POLYMORPHISM OF SEROTONIN TRANSPORTER GENE WITH SMOKING ADDICTION. K Karakülah, AC Şengül, Unye State Hospital, Unye, Ordu, Turkey. **Introduction:** In this study, it is aimed to compare the adults who have nicotine dependence with the healthy adults who are non-dependence in terms ofserotonin transporter gene (5-HTT) polymorphisms. **Methods:** 219 patient who had the diagnosis of nicotine addiction according to the DSM IV criteria and 214 healthy subjects participated in this study. Genetical analysis was carried out from the blood sample taken after the detailed clinical evaluation of patients for 5-HTT gene polymorphism. The participants were subjected to socio-demographic data form, Fagerström Tolerance Questionnaire. **Results & Discussion:** There hasn't been found a relationship between smoking group and healthy group in terms of 5-HTT promotor gene polymorphisms. It has been observed that the frequency of VNTR polymorphisms 12 allels in smoking group is more than VNTR polymorphisms 10 allels while the frequency of VNTR polymorphisms 10 allel is more than VNTR polymorphisms 12 allel in the control groups It has been found that the persons who have promoter polymorphisms L allel and VNTR polymorphisms 12 allel are more riskful about smoking.

MODELING WITHDRAWAL FROM ARECOLINE IN ZEBRAFISH. N Serikuly, E Alpyshov, D Wang, J Wang, D Yan, M Wang, Z Tang, TG Amstislavskaya and AV Kalueff, School of Pharmacy, Southwest University, Chongqing, China; Research Institute of Basic Physiology and Medicine, Novosibirsk, Russia. Discontinuation of drugs of abuse evokes