

Contemporary Approaches to Diagnosis, Psychotherapy and Neuro-Psychocorrection of Emotional Disorders in Psychosomatic Diseases

Nataliia PYLYPENKO¹,
Olha KOVALOVA²,
Olesia PROKOFIEVA³,
Olga KOCHKUROVA⁴,
Maryna KRIUKOVA⁵,
Yaroslava ZELINSKA⁶

¹Cherkasy State Technological University, Ukraine, liya878veretelnik@gmail.com

²Bogdan Khmelnytsky Melitopol State Pedagogical University, Ukraine, kovalova.ov.mdpu@gmail.com

³Bogdan Khmelnytsky Melitopol State Pedagogical University, Ukraine, prok.olesya@gmail.com

⁴Bogdan Khmelnytsky Melitopol State Pedagogical University, Ukraine, oliakochkurova55@gmail.com

⁵National University "Odesa law Academy", Ukraine, marisel039@ukr.net

⁶National University of Life and Environmental Sciences of Ukraine, Ukraine, zelinskaya.yaroslava@gmail.com

Abstract: *The article is devoted to the problem of complex consideration of psychotherapeutic methods in psychocorrection of emotional disorders in combination with neuropsychological technologies in psychosomatic diseases. The most popular psychotherapeutic and neuropsychological methods in foreign and domestic works which can be applied in the psychosomatic approach to diagnostics and therapy of emotional frustration are considered. Certain neuropsychological mechanisms of emotional and psychosomatic disorders are analysed. The role of the emotional factor in the occurrence of psychosomatic diseases is emphasized. It is proposed to replace psychopharmacology with neuro psycho-corrective aids to restore optimal neurophysiological functions of the central nervous system, taking into account the degree of its recovery and availability of emotional and personal resources of the client. Psychotherapeutic and neuropsychological recommendations for recovery of psychosomatic health have been developed.*

Keywords: *Emotional response, psychophysiological reactions, neuropsychological methods, personality disorders, chronic stress, central nervous system, psychosomatic approach.*

How to cite: Pylypenko, N., Kovalova, O., Prokofieva, O., Kochkurova, O., Kriukova, M., & Zelinska, Y. (2022). Contemporary Approaches to Diagnosis, Psychotherapy and Neuro-Psychocorrection of Emotional Disorders in Psychosomatic Diseases. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 13(1Sup1), 277-294. <https://doi.org/10.18662/brain/13.1Sup1/319>

Introduction

The role of emotions in the life of an individual is invaluable - they act as a powerful regulator of mental activity to meet subjectively significant needs, a factor in ensuring and maintaining good health. However, chronic negative emotional manifestations, taking into account their intensity, consistency and frequency, can disrupt human behaviour, cause psychological and physiological maladaptation under stress, fatigue, emotional burnout, depression and other emotional disorders. In the complex current conditions of human activity, the needs of individuals are often frustrated, the balance between the ability to meet them and personal resources and requirements of the society, which often leads to inadequate emotional response and disorders of emotional states and properties, reduced functioning and activity, onset of neurotic and psychosomatic problems. In this regard, the study of contemporary approaches to diagnosis, psychotherapy and neuro-psychocorrection of emotional disorders in psychosomatic diseases at the theoretical and applied level of integration of neuroscientific positions, psychotherapeutic views and general psychological ideas is an extremely important issue for professionally competent psychological assistance to people in solving their important and subjectively significant problems (Demchenko et al., 2021; Kosholap et al., 2021; Prots et al., 2021).

The urgency of the issue made it possible to set theoretical and methodological, clinical and applied goals of the article: analysis of current methods of diagnosis, psychotherapy and neuro psychocorrection of emotional disorders in psychosomatic diseases, taking into account the psychosomatic approach; presentation of generalized psychotherapeutic and neuropsychological recommendations for ensuring psychosomatic health. Novelty and practical significance of the article - for the first time it is proposed to replace psychopharmacology with neuro psycho-corrective aids to restore optimal neurophysiological functions of the central nervous system, taking into account the degree of its recovery and availability of emotional and personal resources of the client; it is recommended to conduct neuro psychocorrection in combination with individually selected for the client psychotherapeutic methods, taking into account the degree of development of emotional and psychosomatic disorders and the presence of personality disorders; orientation of medical and psychological analysis of the problem on the use of psychotherapeutic methods (techniques and

exercises) in combination with neuropsychological technologies as a means of psychocorrection of emotional disorders in psychosomatic diseases.

Psychosomatic approach to diagnosis, psychotherapy and neuro-psychocorrection of emotional disorders in psychosomatic diseases

The concept of “psychosomatics” combines two aspects: psychosomatic disorders and psychosomatic aids. Psychosomatic aids define a general approach to provision of medical care, the conceptual basis of which is the complexity of somatopsychosocial interaction. In the DSM-IV, psychosomatic disorders refer to category 316 – “Psychological factors influencing the somatic state”. The interaction of psyche and soma is most pronounced during emotional reactions, in particular excessive secretion of cortisol due to the reaction of the hypothalamus - pituitary - adrenal gland to stress leads to structural changes in organs and systems, depressed mood, helplessness and hopelessness, prolonged depression, increase in blood pressure, sleepiness, which disturbs the homeostatic balance, increasing susceptibility to infectious and other pathogenic factors. In the cognitive scheme “stress - psychophysiological and emotional reactions - somatization of emotions - psychosomatic disorders” emotional reactions are closely interrelated with personal characteristics and behaviour, manifested through them and maintain psychological integrity between the outside world with complex stressful situations and internal – subjectively valuable, unique and can confirm personal disorders with socially disorganizing behaviour, poor adaptability and lack of flexible thinking.

According to the classical classification, the following psychosomatic disorders are distinguished: *classical psychosomatosis*, i.e. psychosomatic diseases accompanied by organic pathology of internal organs and systems (essential hypertension, peptic ulcer, coronary heart disease, bronchial asthma, intestinal inflammation, neurodermatitis, idiopathic urticaria; functional psychosomatic disorders (systemic neurosis; some types of arrhythmia, stenocardia, coronary spasms; syncope (fainting), hypotension, headache, Raynaud’s disease, stuttering, enuresis, neurotic tic, vomiting, irritable colon syndrome, most forms of sexual dysfunctions, functional infertility; *psychosomatic disorders* in a broad (indirect) sense, when health is impaired due to specific characteristics of human behaviour, due to the nature of an individual and his experiences (predisposition to physical trauma, burns, so-called psychogenic obesity, alcoholism, substance abuse, etc.); *conversion symptoms* occur in response to a neurotic conflict, are of symbolic nature and

are manifested mainly by pathological phenomena affecting the organs of senses (amaurosis, slirdomutism, pain, anaesthesia) or impaired motility (paralysis, paresis, convulsions, astasia, abasia, vomiting, aphonia, hysterical tangle) (Fedosova, 2013).

Fava & Sonino (2010) clarified the definition of psychosomatic aids, which is considered as a section of psychosomatics. From the point of view of contemporary researchers, psychosomatic aids can be defined as a complex interdisciplinary basis for: assessment of psychological factors influencing individual vulnerability, as well as the course and outcome of the disease; biopsychosocial consideration of patient care in clinical practice; specialized interventions for integration of psychological therapy in the prevention, treatment and rehabilitation of medical diseases.

It can be predicted that one of the psychological causes of inadequate emotional reactions, long-term recurrence of which in similar stressful situations can cause psychosomatic illnesses, are personal characteristics. In the current practice of clinical research, personal disorders are of scientific interest as persistent rigid patterns of long duration, which cause significant distress, which, obviously, can cause psychosomatic manifestations. Emotional disorders cannot be considered objectively separately from personal ones. Thus, Pavlenko (2018) describes a detailed classification of personal and emotional disorders based on generalization of mostly foreign as well as domestic concepts: theatrical, emotional or unstable disorders are related to antisocial, borderline, hysterical and narcissistic personality disorders - a common characteristic of these disorders are problems with self-control (impulsivity) and emotional regulation; avoidant, dependent and obsessive-compulsive personality disorders are grouped in DSM - 5 in cluster C and are called "anxiety and panic (fear) disorders" - their common feature is a high level of anxiety; schizophrenic personality disorder is characterized by a limited ability to express feelings and feel pleasure, emotional coldness, detachment or efficiency; paranoid personality disorder is characterized by excessive sensitivity to failure, inability to forgive offenses, suspicion and a tendency to misperceive reality; antisocial personality disorder is characterized by manifestations of hostility, aggression, anger; narcissistic personality disorder is accompanied by such emotional features as lack of ability to empathize with others, envy, anger or shame, aggression towards others; passive-aggressive personality disorder manifests itself in the form of general gloom, propensity for controversy, anger and envy of more successful people, and

the psychoneurotic - in the form of increased excitability in combination with a pronounced tendency to exhaustion and reduced efficiency. Emotionally unstable personality disorder, according to ICD - 10, is characterized by a tendency to impulsive actions regardless of the consequences, outbursts of emotions, unpredictability of mood, inability to control “explosive” behaviour. The classification distinguishes two types of disorders: impulsive type, characterized mostly by emotional instability and lack of emotional control, and borderline type, which is further characterized by disorders of self-perception and inner aspirations, chronic feeling of emptiness, tense and unstable interpersonal relationships, and also tendency to self-destructive behaviour (including suicidal behaviour). Avoiding (anxious) personality disorder is characterized by a feeling of inner tension, gloomy premonitions, lack of sense of security and inferiority complex.

Theoretically, one can predict that at the neurohormonal level for different types of emotional and personality disorders may show similar psychosomatic manifestations for each of them. Chronic psychosomatic diseases with an appropriate complex of emotional disorders are always associated with a depleted nervous system and functional disorders in all body systems, which requires neuro psychocorrection and long-term psychotherapy. In addition, neuropsychological correction of emotional disorders should be applied at the initial stage of work with the client to restore the central nervous system, development of new neural connections, ensuring optimal performance.

The current approach to diagnosis, psychotherapy and neuro-psychocorrection of emotional disorders in psychosomatic diseases should be integrated, comprehensive and systemic. The psychosomatic approach to this problem is carried out on the basis of the theoretical and methodological analysis of the following works. Therefore, the current approach to psychotherapy of psychological maladaptation of the client's personality with neurotic and psychosomatic problems can be fully learned from the work of Mushkevych & Chaharna (2017) on psychotherapy techniques, genesis of neurosis and the result of psychotherapeutic effects in various classical psychotherapeutic areas: psychoanalysis, behaviour, client-centred, physical, interpersonal psychotherapy, gestalt therapy, etc. For theoretical and applied analysis of the problem in relation to the goals in our article, the scientific position of Kocharyan (2014) on the psychotherapeutic effect of techniques for releasing “jammed” emotions is of great importance. For our work, the use of client-cantered psychotherapy techniques in solving

neurotic and psychosomatic problems is also of scientific interest (Kocharyan, 2014; Rogers, 1951); methods of cognitive-behavioural therapy for psychocorrection of emotional disorders (Linehan, 1993) - the current state of their application in the diagnosis and planning of therapy was generalized and presented at a sufficient level for psycho correctional practice by Fedorov (2002). Kulakov (2003) successfully generalized the most popular theories of psychosomatic disorders and professionally applied an integrative approach in their therapy - a combination of psychodynamic psychotherapy with cognitive-behavioural and family psychotherapy.

McEwen (2007) successfully modelled the relationship between brain function and the emotional and physiological response of a person to stress and the peculiarities of the body's adaptation to stressful events throughout life. The author argues that the brain is a key organ of response to stress because it determines physiological and behavioural responses that can be adaptive or maladaptive. The hippocampus, amygdala and prefrontal cortex undergo structural adjustment that alters behavioural and physiological responses. Therefore, in addition to pharmaceutical therapy, social and behavioural activities, regular exercise and social support, reduce the burden on the nervous system under the influence of chronic stress and are health keeping technologies for brain and body. Biopsychosocial model of psychosomatic disease in dynamics with a detailed analysis of the most well-known in foreign science theories of psychodynamic processes describing methods of psychodynamic therapy and trends in current psychosomatics developments (Wise, 2014), the relationship of neuroses of individuals with maladaptive manifestations in behaviour in particular, its aggressive and masochistic manifestations with psychosomatic disorders (Xardel-Haddab, 2009), the relationship of alexithymia (inability to recognize and understand emotions, experience emotional feelings and separate them from bodily sensations, deficiency of intellectual and cognitive competence of persons with personality disorders in human relations) with psychosomatic disorders (Taylor & Bagby, 2021).

In medical and psychological practice, it is very important to take a psychosomatic approach to the correction of emotional and bodily disorders at the psychotic, borderline and neurotic levels, diagnosing at which of these levels the client is emotionally "stuck" to further select more effective psychotherapeutic techniques for working with his problem, also taking into account the integration, competence and personality-oriented approaches. Thus, Linehan (1993) offers a comprehensive integrative approach to the

treatment of people with borderline personality disorder and recommends to creatively combine the best elements of behavioural, psychoanalytic, cognitive-behavioural and other psychotherapeutic methods; Donyavi et al., (2015) offer consideration of the cognitive-behavioural model of neurotic and psychosomatic problems of people with physical dysmorphic disorder, which may also be associated with generalized anxiety disorder, obsessive-compulsive disorder and post-traumatic stress disorder; Khodayarifard & Fatemi (2013) describe the therapeutic intervention of spiritual practices in the correction of anxiety disorders with a combination of cognitive-behavioural and family therapy; Dyke et al., (2014) emphasize the important role of management development strategies in the comprehensive support of people with complex borderline personality disorder by various specialists, with detection of distress and improving mechanisms for overcoming the neurotic problem in patients.

Misinterpretation of events due to individual vulnerability to certain stresses causes one or another emotion, moreover psychopathological interpretation of emotions is presented as a strong exaggeration of normal emotion. Cognitive distortions in the interpretation of emotions, the problem of dependence, disorder of object relations, the experience of unconscious internal conflicts can also play certain role in the emergence of emotional disorders. Thus, according to the model of autonomic neurosis, when an unconscious conflict has no external manifestations, it leads to emotional stress, accompanied by persistent changes in the autonomic nervous system, a complex of inadequate emotional reactions. The emotional factor starts the process of somatization, conditions are created when healthy defence mechanisms are insufficient, neurotic ones switch on (depression, fears, phobias, alexithymia and other emotional disorders) (Kulakov, 2003).

We believe that for the effectiveness of diagnosis of emotional disorders in psychosomatic diseases and their subsequent treatment in the emotional psychosomatic complex “inadequate emotional reactions – psychophysiological and psychosomatic manifestations – emotional disorders” it is necessary to identify somatic disorders and those emotional reactions (psychological factor) that caused it. Clinical and psychological diagnosis of emotional disorders should include: description of psychosomatic symptoms and emotional response to similar stressful situations and psychological problems; psychophysiological indicators of the central nervous system; classification of emotional disorders with a detailed

explanation of their relationship with personal structural components; quantitative and qualitative assessment of their depth, intensity and strength; prognosis for their changes in the process of psychotherapy and the use of neuro psycho-corrective medications.

Among the various methods of psychocorrection, the nonverbal body-oriented approach seems attractive due to possibility of direct communication with the subconscious through body language and control of emotions through the impact on their bodily manifestation. “Stagnant” muscle tension caused by emotional reactions to stress is not only a cause of emotional discomfort, but also constant fatigue, decreased vitality and performance (asthenic conditions), the cause of psychogenic pain symptoms and psychosomatic disorders. It is body-oriented techniques, especially muscle and related psycho-emotional relaxation, plastic acting techniques and breathing techniques that contribute to the emotional response (catharsis). At the diagnostic stage, the search for emotional discomfort in connection with a current psychological problem is carried out, the manifestation of which is analysed in detail at the cognitive, emotional, physical and behavioural levels. At the psychotherapeutic stage it is necessary to record these manifestations with negative emotional states and apply active actions to them: methods of conscious self-control at the rational level – discussion with negative thoughts (method of rational-emotional behavioural psychotherapy by Ellis); work with visual images (“swing method” or “slide replacement” in NLP); repetition of habitual actions to extinguish their emotional accompaniment (behavioural psychotherapy). The described methods and techniques are mainly left-hemispheric, verbally-mediated, rational and formalized (algorithmic). In this regard, body-oriented techniques as predominantly right-hemispheric, informal, and nonverbal, which rely on working with bodily sensations, are most convenient for self-treatment by the patient (Sandomyrsky, 2005).

We believe that the goals of body-oriented psychotherapy are very similar to neuro psycho-corrective ones, because the body-psychological problem is a disorder of psychophysiological and psychological adaptation at the same time, whose tasks are primarily restructuring the functional state of the body and neutralizing psychosomatic disorders (neuro psycho-correctional technologies of activation of psychomotor activity, with restoration of the role of both hemispheres of the brain, etc.), and then – correction of adaptation on emotional (work with emotional and volitional frustration, neurosis-like states) and cognitive (formation of constructive

cognitive style in the analysis of stressful situations) levels to increase stress resistance and frustration tolerance through a combination of neuropsychological technologies of work with the body.

The task of psychotherapy is to help the client to release “jammed emotions”, increase the intensity of the emotional process, balance emotions through the use of the model of emotional topography of the psyche. Fixation of “jammed” experience under the influence of trauma is characterized by the following features: an experience does not emerge or end, but lurks under the threshold of consciousness (emotions may exist in a potential state, for example, resentment may “hide” and wait for a situation similar to previous trauma); becomes a “thing” in the body: “lump in the throat”, “tightness of the chest”, “bag on the shoulders”, etc. (emotion is somatised into a bodily symptom); has the property of “stagnation”; experiences of similar emotions transform into each other: resentment - anger - crying - helplessness, creating a “vicious circle of experiences”, nothing changes - to relieve them cathartic techniques are required, the technique of expanding the scope of experiences (Kocharyan, 2014).

A special role in integration of emotions is played by the hypothalamus - emergence of emotions and their quality depend on the degree of excitability of the hypothalamus and its centres – the sympathetic and parasympathetic nervous system. It is the hypothalamus that at the time of a negative stressful situation launches a systemic program of mobilization of the body, changes the pulse, blood pressure, respiratory rate (Zagornaya, 2018). Therefore, the use of neuropsychological correction technologies in combination with psychotherapy will be appropriate, because taking into account the biological and psychophysiological mechanisms of emotional states is an important task to restore the nervous system in situations of physical and emotional exhaustion of the human body.

In bioenergy therapy, work is carried out sequentially or simultaneously on the psychological and physical levels. Physical work is carried out taking into account the plan, in accordance with the bodily metaphor of the human problem, which is equivalent to a psychological problem. The body must speak psychological language. If one does not see emotional problems behind the body blocks, and does not direct the patient’s work to the study of muscle tension in the context of their life problems and emotional experiences, then physical work will cease to be psychotherapy. Tensed muscle lowers energy levels, blocks mobility, and limits the level of person’s expression. Working with the body includes

massage, special tense postures, breathing and expression exercises (cathartic techniques) (Burlachuk et al., 2007).

Emotion is one of the important targets of client-centered psychotherapy in order to penetrate deeper into the client's problem and actualize their constructive experiences. The client may not have personal changes for a long period of time, because they declare one emotion (insult), and experiences a stable emotional complex (anger, helplessness, crying combined with resentment), which is characterized by regression, deficiency of mature components. There are the following opportunities (strategies) to change the experience: fixation of the client's consciousness on the maladaptation of experiences, introduction of elements of awareness in them; expanding the range of experiences, not inventing them, but only discussing with the client the values and experiences that can enter their system of consciousness, moving from the pole of protective reactions to the pole of openness to their experience. Protective reactions associated with congruence (mismatch between feelings and words and behaviour) manifest themselves in the form of defence mechanisms such as denial and distortion to reduce anxiety and protect the self - concept, but their rigidity may be related to the pathogenetic mechanism of neurotic development disorder. Therapeutic mechanisms of personal changes can be: emotional and cognitive restructuring, expansion of consciousness, dissociation of emotions from the cognitive sphere. Client-centred psychotherapy is recognized as effective in solving neurotic and psychosomatic problems (Kocharyan, 2021).

The purpose of rational-emotional therapy by Ellis is to change emotions through the impact on the client's thoughts and change their attitude to their own neurotic reactions. From the point of view of RET cognition is the main factor that determines the emotional state. Influence on thoughts, especially on irrational judgments (exaggeration, erroneous conclusions, absolutization, etc.) – a short way to achieve a change in emotions and behaviour. It is important for the effectiveness of psychotherapy of emotional disorders to analyse the client's benefits and losses associated with maintaining a state of emotional distress (Fedorov, 2002). We believe that for the effectiveness of psychotherapy of emotional disorders of psychosomatic patients associated with inadequate emotional response, there will be such psychotherapeutic RET exercises, able to guide the client in recognizing and deeper understanding of their own and other peoples' emotions – a dictionary of emotions (depiction of all emotional

manifestations through pantomime in order to expand the understanding of emotions and deepen their understanding, correction of negative emotional reactions through bodily movements); dictionary of terms (pantomime image of emotional states); dictionary of names of new feelings. Performing the exercises is accompanied by an analysis of the client's feelings: "I now feel.... I'm worried... etc." If emotions are blocked, gestalt therapy techniques or psychodrama (empty chair technique, role exchange, etc.) will help to enter the role of repressed emotions at the bodily level.

Lowen's bioenergetic analysis is a way of understanding the personality through the terms of the body and the energy processes that take place in it. These processes, namely production of energy through respiration, metabolism, its release in motion, are functions of life. In addition, Lowen's bioenergetic analysis is a form of psychotherapy that combines the work of the body and mind, helping people to solve emotional problems. Bioenergetic work with the body includes special manipulations and exercises or practical experiments, manipulative procedures – massage, dosed pressure and gentle touch, which help chronically contracted muscles to relax. During the exercise, tense muscles are realized; the vibrating state of the body and feeling of contact with it amplifies; legs and body are grounded; breathing deepens; cognition sharpens; self-expression increases. Tensed muscles reduce energy levels, block mobility, and limit a person's expression. Blocking energy flows in the body weakens vitality of the body, the depth of feelings and thoughts. Working with the body includes massage, special tense postures, breathing, expression exercises (cathartic techniques). In bioenergetic analysis there are specific techniques for "dissolving" the blocks of the mouth (screaming, imitation of vomiting movements, crying, biting a towel, etc.), eyes (circular rotation of the eyes, shifting the gaze afar, to the tip of the nose), neck (rotation of the neck in different directions). All exercises are performed with free mouth breathing. Exercises for all parts of the body in the standing, sitting and lying positions have also been developed (Mushkevych & Chaharna, 2017).

Our generalized analysis of psychotherapeutic methods for the treatment of emotional disorders and neuroses and psychosomatic disorders in various psychotherapeutic areas are often combined with psychopharmacological therapy. The latter does not always, in our opinion, affect improvement of the client's psycho-emotional state. From my own counselling practice: the client - a woman, 53 years old, a teacher, underwent a psychotherapy course in connection with neurotic and psychosomatic

problems; psychopharmacological drugs prescribed by psychotherapists did not restore sleep, the state of nervous and mental stress, according to her – worsened; our recommendation was to replace pharmacotherapy with neuro psycho-corrective methods, which resulted in restoration of relative efficiency, sleep restored (up to 3-5 hours with a tendency to a gradual increase), and well-being has improved. The emotional stress of representatives of socio-economic professions requires primarily neuro psycho-correction of psychosomatic disorders – both for therapeutic and prophylactic purposes. The client underwent a course of yoga, autogenic training, acupuncture, mastered the individually selected respiratory system, which, unquestionably, stimulates nervous regulation and brain activity, enhances the synthesis of hormones of “happiness”, calms the nervous system. The degree of emotional disorders has decreased due to the methods of cognitive-behavioural psychotherapy, body-oriented psychotherapy and client-centred psychotherapy.

The described clinical case may be related to the client’s subjective actualization of emotional and personal resources at the optimal level, given her hyper-responsibility in the professional sphere and individual work with awareness of her own current needs (at the first consultation the client could not name any needs from the “I want” list, but only answered the question “what I should do”). In further work, actualization of understanding of one’s own emotions and frustrated needs in body language had successful therapeutic (corrective) effects. In our opinion, a *complete* replacement of psychopharmacological medications with neuro psycho-corrective methods as an adjunct to psychotherapy is possible taking into account the prognosis for restoration of neurophysiological characteristics of the CNS; psychosymptoms of psychosomatic disorders; availability with the client of psychological resources to solve a neurotic problem – awareness of cognitive dissonance in the performance of conflicting social roles in the system of meaningful relationships and the level of willingness to meet the emotional component of internally deprived needs associated with unfulfilled desires and motives; as well as mild or moderate (approximately below average level) degree of emotional disorders, without severe psychopathology, character accentuations, a complex degree of personality disorders. It is important to combine psychotherapy of emotional disorders with neuro psycho-corrective exercises in order to actualize the right and left hemispheres, coordination of different parts of the body, restoration of

optimal work of the central nervous system, reduction of neuropsychological and muscular tension.

Psychotherapeutic and neuropsychological recommendations for restoration of psychosomatic health

Effective psychotherapeutic work with a psychosomatically unwell patient with severe emotional inadequacy should be organized comprehensively, systematically, with integrated application. Modern psychotherapy of emotional disorders is carried out mainly by methods of personality-oriented psychotherapy. Clinical psychologists and psychotherapists use methods from virtually all psychotherapeutic areas for psychotherapy of emotional disorders in psychosomatic diseases and most often from the following methods: systemic family psychotherapy, positive psychotherapy, gestalt therapy, cognitive-behavioural psychotherapy, art therapy, physical psychotherapy, therapy, suggestive psychotherapy.

The current approach to psychotherapy of emotional disorders in psychosomatic diseases should cover the following tasks (areas of psychotherapeutic work): 1) cognitive reconstruction of the client's thoughts in the analysis of psycho-traumatic situations and emotional response to them, reflection of their own emotional reactions and their stereotypes and adequacy in relation to a particular circumstance, psychological analysis of emotional dependence on similar stressors, detection of cognitive dissonance, inconsistency between "me - ideal" and "me - real" and features of unconscious internal conflicts, formation of a new psychosocial position on the basis of information about the emotional and cognitive style of the client; 2) changing attitudes to traumatic situations, other people and to oneself and emotional response to relationships in these situations to build adequate (positive) self-esteem with an objective definition of the vector of direction of the client's emotions in the system of individual relationships; analysis of the experience of receiving emotional support from other people and its adjustment; it is also important to change the attitude to psychosomatic illnesses and analysis of personal meanings and secondary benefits of the disease; 3) behaviour change that is adequate to the requirements of stressful situations, resulting in a new form of behaviour associated with optimally adequate emotional responses, as well as positive reinforcement of new patterns of behaviour with a healthy emotional attitude to psychosomatic illness and to oneself.

Obviously, the emotional aspect of the attitude to the world and self-attitude are stubborn to psychotherapeutic (psychological) influence, because their awareness and understanding are always intellectual mechanisms of psychological protection, which help explain to the client psychosomatic illness as inevitable, natural and usually unrelated to similar emotional reactions to stress in one's life. The task of psychotherapy is to promote the client's reflection of their own emotional manifestations, their causes, patterns of manifestation and influence on psychosomatic disorders and changes in emotional response through optimization of self-awareness processes. The client's awareness of the emotional mechanism of psychosomatic manifestations, which may come to them through trance, verbal or nonverbal actions, creativity, metaphor or dance movements, will cause an adequate emotional response through bodily organization and weaken psychosomatic manifestations. Emotions and the body are an indicator of the subjective significance for the client of difficult life situations, and the brain under any circumstances will always process primarily information about emotional attitudes associated with the functioning of the central nervous system.

In this regard, neuro-visual diagnosis of the state of development of neural connections associated with emotional self-regulation through neurobiological mechanisms and functional systems of the brain is essential; identification of pathogenetic mechanisms of emotional and bodily disorders. Based on the data of neuropsychological research and psychodiagnostics of emotional disorders, neuro-correction of emotional maladaptation of the client is performed using techniques such as desensitization in combination with body-oriented, respiratory and relaxation exercises for the nervous system with their gradual complication. After each session, diagnostic sections are performed to ensure the individually selected set of neuro-correctional exercises in combination with psychotherapeutic techniques. Neuropsychological correction of psychosomatic disorders and diseases helps to improve cerebral circulation, increase the differentiation of cerebral functional systems, activate interaction of the cerebral hemispheres, improve performance and improve well-being.

It can be predicted that in the process of development of the emotional-volitional sphere of the client's personality and gaining experience in building emotional relationships, a bodily form of emotional model of life activity is formed, so neuro-corrective influences on certain bodily

manifestations can provide optimal level of emotional self-regulation of the client's personality that gradually, in the course of neuro psychocorrection may reduce the acute or chronic state of psychosomatic manifestations. For primary care to optimize the neuropsychological state of the client a course of neuro correctional work is sufficient, which can provide "communication" with one's own body through consciousness, self-awareness of their own emotions and psychosomatic state caused by emotional reactions to difficult circumstances, exercises to relax back muscles when psychosomatic diseases of the musculoskeletal system with the simultaneous use of techniques of individually selected proper breathing, massage and neuropsychological exercises. Combination of neuropsychological correctional technologies and psychotherapy will be an effective rehabilitation measure to restore the client's psychosomatic health in the future. A dynamic diagnosis of emotional development of the client under the influence of neuro-psychocorrection in combination with psychotherapy is important, the end result of which is the client's achievement of internal identity (optimal emotional contact with oneself, positive self-acceptance) and adaptability (availability of internal emotional and personal resource for building healthy relationships primarily with oneself and other people).

Conclusion

Psychosomatic disorders and illnesses are like a "mirror" reflection of emotions in the neurotic experience of unconscious internal conflicts through bodily manifestations. The relationship between the body (soma) and manifestations of the mental life of the individual is interconnected by an emotional reaction, which is reflected in the form of psychophysiological reactions, experiencing an individual attitude to a psych traumatic situation, neurovegetative changes in the body, behaviour change. Techniques of emotional self-regulation and body-oriented neuro psycho-corrective methods in combination with psychotherapy can be effective in psychocorrection of emotional disorders associated with phobic-depressive symptoms or panic attacks, neuroticism and psychopathization, and related manifestations of psychovegetative syndrome, emotional, physical and motivational exhaustion of the client. The main task of specialists in any psychotherapeutic field is to restore the client's emotional orientation in difficult life situations, gain experience of emotional self-regulation at a deep

personal level, actualization of internal resources for harmonious relationships with oneself and the environment.

Psychosomatic approach to diagnosis, psychotherapy and neuropsychocorrection of emotional disorders in psychosomatic diseases should be carried out comprehensively, at the integration-system level - taking into account nosology and emotional mechanisms of psychosomatic diseases; age and gender of the client; features of their family relations and social status; psychosomatic and neuropsychological state; personality traits and typology of personality disorders; pathogenesis of psychosomatic illness; the degree of depletion of the nervous system; specifics of emotional disorders with a detailed explanation of their relationship with personal structural components; quantitative and qualitative assessment of the depth, intensity and strength of emotions and their disturbance; prognosis for changes in emotional states in the process of psychotherapy and the use of neuro psycho-corrective methods; personality-oriented approach to the choice of psychotherapeutic techniques.

References

- Burlachuk, L. F., Kocharyan, A. S., & Zhidko, M. E. (2007). *Psiboterapiya: Uchebnik dlya vuzov* [Psychotherapy: Textbook for universities]. Piter.
- Demchenko, I., Maksymchuk, B., Bilan, V., Maksymchuk, I., & Kalynovska, I. (2021). Training Future Physical Education Teachers for Professional Activities under the Conditions of Inclusive Education. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 12(3), 191-213.
<https://doi.org/10.18662/brain/12.3/227>
- Donyavi, V., Rabiei, M., Nikfarjam, M., & Rahnejat, A. M. (2015). Develop and validate a metacognitive-cognitive-behavioral model for body dysmorphic disorder. *Open Journal of Medical Psychology*, 4, 45-52.
<https://doi.org/10.4236/ojmp.2015.42005>
- Dyke, J., Hendry, K., Hill, J., Schultz, M., Mason, E., & Glu, P. (2014). Management of a cluster of foreign body ingestion incidents in patients with borderline personality disorder. *Open Journal of Psychiatry*, 4(2), 99 - 103.
<https://doi.org/10.4236/ojpsych.2014.42014>
- Fava, G. A., & Sonino, N. (2010). Psychosomatic medicine: A name to keep. *Psychother Psychosom*, 79, 1-3. <https://doi.org/10.1159/000254899>
- Fedorov, A. P. (2002). *Kognitivno-povedencheskaya psiboterapiya* [Cognitive-behavioral psychotherapy]. Piter.
- Fedosova, L. O. (2013). *Klinichna psykholohiia: navchalnyi posibnyk* [Clinical psychology: a textbook.]. Publishing House "Personal".

- Khodayarifard, M., & Fatemi, S. M. (2013). Combination of spirituality and cognitive-behavioral family therapy on treatment of generalized anxiety disorders. *Psychology*, 4(4), 427-432.
<http://dx.doi.org/10.4236/psych.2013.44060>
- Kocharyan, A. S. (2014). Perezhivanie kak mishen klient-tsentrirovannoy psihoterapii [Experience as a target of client-centered psychotherapy]. *Psykbolohichne konsultuvannia i psykboterapiia*, 1-2, 24-36.
http://nbuv.gov.ua/UJRN/pscp_2014_2_1-2_6
- Kocharyan, A. S. (2021). *Klient-tsentrirovannaya psihoterapiya* [Client-centered psychotherapy].
<http://psychology.univer.kharkov.ua/news2021/NMKDPT2/kocharian/liudinocentr/UK.pdf>
- Kosholap, A., Maksymchuk, B., Branitska, T., Martynets, L., Boichenko, A., Stoliarenko, O., Matsuk, L., Surovov, O., Stoliarenko, O., & Maksymchuk, I. (2021). Neuropsychological Bases of Self-Improvement of Own Physical Health of Future Teachers in the Course of University Education. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 12(3), 171-190.
<https://doi.org/10.18662/brain/12.3/226>
- Kulakov, S. A. (2003). *Osnovy psihosomatiki* [Fundamentals of psychosomatics]. Rech.
- Linehan, M. M. (1993). *Cognitive-behavioral treatment of borderline personality disorder*. Guilford Press.
- McEwen, B. S. (2007). Physiology and neurobiology of stress and adaptation: Central role of the brain. *Physiological Reviews*, 87(3), 873-904. Rockefeller University. <https://doi.org/10.1152/physrev.00041.2006>
- Mushkevych, M. I., & Chaharna, S. Ye. (2017). *Osnovy psykboterapii: navchalnyi posibnyk* [Fundamentals of psychotherapy: a textbook]. Vezha-Druk.
- Pavlenko, T. M. (2018). *Rozlady osobystosti: rozvytok niavlen, suchasni klasyfikatsii, pohliady na terapiiu* [Personality disorders: the development of ideas, modern classifications, views on therapy]. <https://health-ua.com/article/36225-rozladi-osobistost-rozvitok-uyavlensuchasnklassifikats-poglyadi-na-terapyu>
- Prots, R., Yakovliv, V., Medynskyi, S., Kharchenko, R., Hryb, T., Klymenchenko, T., Ihnatenko, S., Buzhyna, I., & Maksymchuk, B. (2021). Psychophysical Training of Young People for Homeland Defence Using means of Physical Culture and Sports. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 12(3), 149-171. <https://doi.org/10.18662/brain/12.3/225>
- Rogers, C. R. (1951). *Client-centered therapy: its current practice, implications and theory*. Houghton Mifflin Co. <http://www.nrogers.com/carlrogersbio.html>
- Sandomyrsky, M. E. (2005). *Psykbosomatyka y telesnaia psykboterapiia: Praktycheskoe rukovodstvo* [Psychosomatics and physical psychotherapy: A practical guide]. Nezavysymaia firma "Klass".

- Taylor, G. J., & Bagby, R. M. (2021). Examining proposed changes to the conceptualization of the alexithymia construct: The way forward tilts to the past. *Psychother Psychosom*, 90, 145–155. University of Toronto.
- Wise, T. N. (2014). Psychosomatics: Past, present and future. *Psychotherapy and Psychosomatics*, 83, 65 - 69. <https://www.karger.com/Article/Pdf/356518>
- Xardel-Haddab, H. (2009). *Névrose, psychosomatique et fonctionnement limité: approche clinique projective: Du destin des pulsions agressives* [Neurosis, psychosomatics and limited function: projective clinical approach: Two destinations of aggressive pulses]. Université Nancy.
- Zagornaya, E. V. (2018). *Osnovy patopsihologii: Uchebnoe posobie* [Fundamentals of Pathopsychology]. Mir nauki.