

# Neuropsychological Correction Technologies of Psychosomatic Disorders and Diseases

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**Abstract:** *The article is devoted to the problem of considering the best neuropsychological technologies for correcting human psychosomatic health. The most popular theories of the onset of psychosomatic disorders in foreign and domestic works are considered. The article describes neuropsychological mechanisms: the provision of psychosomatic health and the occurrence of psychosomatic disorders and diseases and some features of their dynamics. A detailed classification of psychosomatic disorders has been submitted. The role of the emotional and psychological factor in the occurrence of psychosomatic disorders and diseases is emphasized and other influential factors in the violation of psychosomatic health in general are considered. The conditions for the development and implementation of an individual program for neuropsychological correction of a psychosomatically ill client, taking into account the specificity and category of psychosomatic disorders, the peculiarities of the relationship between the emotional and bodily spheres and the results of neurophysiological research of the functional state of the brain, as well as a complex of neuro-psychosocial factors of psychosomatic health resources. The conditions for professionally competent neuropsychological correction of psychosomatic disorders at the systemic level are noted. The technologies of neuropsychological correction in combination with psychotherapy are considered. Neuropsychological recommendations have been developed to ensure, restore and correct psychosomatic health. The use of psychohygiene as a psychoprophylaxis of psychosomatic diseases is recommended.*

**Keywords:** *Emotions, internal conflicts, neuropsychological methods, chronic stress, psychosomatic health, nervous system, mechanisms of psychological defense, neuropsychological mechanism, psychotherapy.*

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## 1. Introduction

Today, a neuropsychological program for the preservation of psychosomatic health is becoming especially important in connection with social, environmental and economic changes in the human life space (Demchenko et al., 2021; Kosholap et al., 2021; Prots et al., 2021). The development of the scientific neuropsychological direction of correction of somatoform disorders and diseases and psychoprophylactic health care technologies for the implementation of psychological support for psychosomatic patients are relevant issues in psychotherapy and neurosciences. An integrated approach to the study of psychophysiological, biological, internally personal, neuropsychological and social factors of reservations of psychosomatic disorders has become a priority for the study.

The ability to psychologically correctly experience their emotions, orientation towards solving psychological problems as opposed to avoiding them, positive thinking, good mood, a sense of humor can have people with signs of psychosomatic health. But the frequent suppression of one's emotions, as a result of which one feels discomfort, low stress resistance in conditions of chronic stress and long-term frustration of urgent needs, the dominance of asthenic emotions depletes the body with mental stress, and can also trigger the mechanism of psychosomatic disorders at the same time against the background of rigid psychological defenses and manifestations of deformation personality structure. The emotional factor is the leading one in the emotional response to stressful stimuli externally. Negative emotions for a long time can cause pathological changes in the functional systems of the body, primarily for the cardiovascular system.

In conditions of chronic stress, neurotic reactions (which are most often associated with fears and anxieties), psychophysiological or somato-vegetative reactions (fever, sweating, blood pressure, etc.) may appear, which may indicate systemic organ disorders at the neurohormonal level. Undoubtedly, especially in psychosomatic disorders, the nervous system is exhausted, and all systems of the human body are involved and suffer, which requires long-term (up to several years) psychotherapy and treatment. Therefore, the primary tasks should be the rehabilitation of the nervous system and neuropsychological correction with a combination of methods of personality-oriented psychocorrection of psychosomatic patients - an urgent applied problem in neurosciences. We believe that neuropsychological correction technologies should be used already at the initial stages of

working with a client, especially their introduction is also important in chronic human diseases, as well as in the progression of somatic disorders.

The objectives of our article follow from the aforementioned introductory conceptual provisions: consideration of modern methods of neuropsychological correction of psychosomatic disorders and diseases with a description of the neuropsychological mechanism of their occurrence and course and the development of neuropsychological recommendations for the preservation and restoration of psychosomatic health. The novelty and practical significance of the article - for the first time, the obligatory use of neuropsychological correction of psychosomatic disorders of the client in the practice of psychotherapists and psychologists, taking into account the degree of recovery of the depleted nervous system based on the results of neurophysiological research of the functional state of the brain of a psychosomatically sick client, the peculiarities of the relationship of his emotional and bodily spheres and the complex is proposed neuropsychosocial factors of psychosomatic resources of his health. The “emotional” neuropsychological occurrence of psychosomatic disorders is substantiated and the complex application of the most effective psychotherapeutic methods and neuropsychological measures for their correction and restoration of neurophysiological indicators of the central nervous system and psychoemotional state of a client of any age - from young to old is recommended.

## **2. Theoretical analysis of the study of the problem of the neuropsychological mechanism of the appearance and characteristics of the dynamics of psychosomatic disorders and diseases**

Psychosomatic is called secondary functional and organic disorders of internal organs and systems, the primary cause of the appearance and exacerbation of which are psychological factors. The concept of “psychosomatics” unites a number of phenomena that are difficult to formulate unambiguously. However, two aspects can be distinguished: psychosomatic disorders and psychosomatic medicine. Psychosomatic medicine defines a general approach to the delivery of health care, the conceptual basis of which is the complexity of somatopsychosocial interactions. In the DSM-IV, psychosomatic disorders designate category 316 – “Psychological factors affecting the somatic state”. This also includes disorders that have general somatic symptoms due to emotional factors or contributed to their appearance. Usually we are talking about a system of individual organs, the activity of which is controlled by the autonomic nervous system. For example, atopic dermatitis, low back pain, bronchial

asthma, hypertension, migraine, peptic ulcer and colitis. Disorders that are described in other classifications as psychosomatic can be characterized in the following categories: F45 - somatoform disorders; F50 - eating disorders; F52 - sexual dysfunction F54 - psychological and behavioral factors associated with disorders or diseases classified elsewhere. Category F54 is especially important, which is used to denote the emotional origin of physical disorders classified in other (not mental disorders) sections of the MKX-10 (diseases of the nervous system). For example: asthma (F54 plus J45) dermatitis and eczema (F54 plus L23 - L25) urticaria (F54 plus L40) gastric ulcer (F54 plus K25) mucosal colitis (F54 plus K58) ulcerative colitis (F54 plus K54). The division of diseases into mental, somatic, psychosomatic and somatopsychic is conditional. Any of the named variants of painful conditions affects the entire body. At the same time, at all stages of the development of the disease, numerous changes are combined into pathological complexes according to the type of a kind of "vicious circle" (Fedosova, 2013, pp. 111-117).

Fava and Sonino (2010) clarified the definition of psychosomatic medicine, which is usually considered as a section of psychosomatics. From the point of view of modern researchers, psychosomatic medicine can be defined as a complex interdisciplinary basis for: assessing psychological factors that affect individual vulnerability, as well as the course of the disease; biopsychosocial consideration of patient care in clinical practice; specialized interventions to integrate psychological therapy into the prevention, treatment and rehabilitation of medical diseases.

First of all, the term "psychosomatics" is associated with a person's emotional response to significant social circumstances in the form of somatic manifestations. The reflection of emotions on the human body is professionally seen by psychotherapists and neuropsychologists, although psychosomatics as a branch of medicine pays great attention to the study of the state of health of the internal organs. Psychosomatic and somatopsychic systems are interrelated, the influence of the nervous system and personality traits on the occurrence of psychosomatic disorders is a poorly studied problem in science. In the etiopathogenesis of somatic diseases, chronic stresses and features of a usually inadequate emotional response to them, the relationship of personal psychopathological and behavioral characteristics with low stress resistance and a genetic or "family" tendency to psychosomatic diseases play a role. Psychosomatics arises under the influence of subjectively significant psychological factors, especially emotional stress, including with the participation of mental influences in the past or present, and may be associated with the experience of a threat in the

future, for example, in connection with possible obsessive “hypochondriac” thoughts about one's state of health. The opinion about the unity of "soul" and “body” was first formulated by Hippocrates in his teaching on temperaments. As a result of modern neurophysiological research, facts about the relationship of the nervous and somatic systems of the human body.

There are neurodynamic mechanisms of somatic manifestations of psychosomatic disorders. The development of functional neuroses is especially easy in representatives of the extreme types of the nervous system: unbalanced choleric people and melancholic patients with a weak inhibitory type of the nervous system. Under certain conditions, breakdowns of normal higher nervous activity are also found in strong types - sanguine and phlegmatic. In this case (most often a few days after severe stress), the pathophysiological mechanism of weakening of cortical nerve cells is triggered, the limit of their working capacity decreases, inertia of nervous processes appears (most often the process of excitation), or, on the contrary, excessive pathological mobility of cortical processes at the time of the manifestation of the reaction changes also by inhibition during the period of irritation - a manifestation of an explosion. Most neuroses cause pathological abnormalities in the field of higher nervous activity and often lead to significant disorders of the functions of internal organs. Among the factors in the onset of psychosomatic disorders, the following should also be distinguished: age-related (pubertal crisis, menopause); production (noise, vibration); seasonal (may be a poly-etiological factor); sexual (more psychosomatic disorders in women in connection with generative function) (Eliseev, 2003).

The system of neuropsychological corrective agents should cover the stage of studying the causes and conditions for the appearance of the clinical picture of pathological processes in the body and the disorders associated with them in mental activity in order to develop effective neuropsychological corrective agents taking into account age, gender, social conditions of life, neurodynamic, neurophysiological and personal characteristics of psychosomatic sick people.

McEwen (2007) successfully modeled the relationship between the brain's work and the emotional and physiological response of a person to stress and the characteristics of the body's adaptation to stressful events throughout life. The author argues that the brain is a key organ in the stress reaction, as it determines physiological and behavioral reactions that can be adaptive or non-adaptive. Stress involves two-way interaction between the brain and the cardiovascular, immune and other systems through neural and endocrine mechanisms. In addition to the “run or fight” reaction to acute

stress, there are events in everyday life that cause a certain type of chronic stress and eventually lead to depletion of the body (“allostatic stress”). The hippocampus, amygdala, and prefrontal cortex undergo structural changes that alter behavioral and physiological reactions. Therefore, as an addition to pharmaceutical therapy, social and behavioral measures, regular exercise and social support, reduce the stress on the nervous system under the influence of chronic stress and are health-saving technologies for the brain and body.

The most complete conceptual provisions regarding the problem we are investigating are set forth in the following works: the concept of the origin of psychosomatic disorders was considered by Kulakov (2003), biopsychosocial model of psychosomatic illness in dynamics with a detailed analysis of the most famous theories of psychodynamic processes in foreign science with a description of psychodynamic therapy methods and trends in the development of modern psychosomatics (Wise, 2014), interrelation of neuroses of persons who are not adapted to protective manifestations in behavior, in particular, aggressive and masochistic manifestations of it with psychosomatic disorders (Xardel-Haddab, 2009), the interrelation of alexithymia (inability to recognize and understand emotions, experience emotional feelings and separate them from bodily sensations, a deficit of intellectual and cognitive competence of persons with personality disorders in relationships between people) with psychosomatic disorders (Taylor & Bagby, 2021). Certain aspects of the theoretical foundations of alexithymia, the difficulties of its diagnosis and attempts to substantiate them in a psychodynamic-oriented model of psychosomatic disorders are reflected in the work (Šago & Babić, 2019).

The presence of a significant emotional response to stimuli from the outside world to a person with psychosomatic disorders is present in almost all foreign and domestic works considered in our work. However, psychosomatic displays of emotions in the organs and systems of the human body are analyzed most clearly in some of them, since they are of scientific interest for our article and consider the personality-psychological factor of the emergence and dynamics of psychosomatic diseases (Alexander, 1953; Eliseev, 2003; Kulakov, 2003; Romans & Cohen, 2008; Solso, 2006). Undoubtedly, a psychosomatic symptom arises as a physiologically accompanying emotional state of a person. For example, in a state of anger, a person's blood pressure rises, his pulse and respiration rate increase. When the anger passes, the physiological processes go out. Over time, a person becomes aware of physiological dysfunctions, but denies the emotions that they caused. Moreover, certain character traits and certain conflicts with unhealthy relationships can cause certain psychosomatic illnesses (Alexander,

1953). From the point of view of modern psychosomatics, the role of emotional disorders in the origin of psychosomatic disorders is also emphasized by Thomas N. Wise (2014). The generalization of the above sources on psychosomatics quite successfully complements the work with proposals for neuropsychological correction methods that can be directly applied to psychosomatic disorders (Eliseev, 2003; Kotsan et al., 2011; Malkina-Pykh, 2005; McEwen, 2007; Mozgovaya et al., 2014; Tkach, 2016).

Sonino and Peruzzi (2009) conducted a highly specialized analysis of the basic scientific concepts of psychosomatic medicine for medical students as analysts of psychosomatics in order to provide them with practical experience in the framework of a biopsychosocial model of care for psychosomatic patients and conduct a psychosomatic examination. The authors summarize the main studies of the main psychophysiological mechanisms - the central nervous system/autonomic nervous system, psychoneuroimmunology and psychoendocrinology in three main diseases - cardiovascular, gastrointestinal and HIV infection. Certain aspects of studies of individual psychosomatic diseases were also considered by Sonino and Peruzzi (2009).

Antonio Meneghetti (2008) considers internal conflicts as one of the sources of psychosomatic disorders and notes that the main problem in the definition of psychosomatics is how opinion, mental activity can become a problem and internal conflict. The source of internal contradictions can be the a priori "Ego". In some cases, the "Ego" defeated by social influence is forced to displace its natural impulses, which is due to internal conflicts between the organic system and social requirements. After repression, "Ego" takes a neurotic position, organizes a person's energy that does not correspond to reality, which does not allow her to realize the natural purpose of her own desires, which results in psychoneurotic disorders, hysteria, organic changes, tumors. Pathological phenomena in both the mental and the somatic sphere are a form of reaction to a neurotic feeling of anxiety.

There are also scientific ideas that the psychosomatic reaction is considered not as a result of repression of instinctive urges, but as a consequence of impaired interaction with others, formed in the early period of a psychosomatically patient's life, fixed in the deficit functions of his personality and manifests itself in adulthood under the influence of social stressors. In this regard, it is the group methods of therapy that are quite effective (Ammon, 2000).

In any case, the rigid influences of psychological defense mechanisms (and not only repression), internal conflicts and inadequate relationships with others can be accompanied by the experience of negative

emotions by a psychosomatically sick person. This may be due to personal anxiety, disruption of the “neural” relationship of a person with the world, perception of inadequate emotional assessment of real life difficulties. At the psychophysiological level, emotional reactions are associated with the activity of brain systems, primarily the limbic system and functional asymmetry of the brain. It follows from this that the complex application of psychotherapeutic methods and neuropsychological methods of correction of emotional, cognitive and behavioral disorders in psychosomatic clients will be effective. In addition, a professionally competent study of neuropsychological mechanisms for ensuring psychosomatic health should be a priority in the choice of the subject of research by specialists.

Kulakov (2003) successfully generalized the most popular theories of the uprise of psychosomatic disorders and professionally applied an integrative approach in therapy - where he combined psychodynamic psychotherapy with cognitive-behavioral and family. Between the theories of the emergence of psychosomatic disorders highlighted by the researcher in the practice of psychocorrection and therapy, the following are quite often analyzed according to the model of autonomic neurosis, if the unconscious conflict does not have external manifestations, this leads to emotional stress, which is accompanied by stable changes in the autonomic nervous system; the mental factor triggers the process of somatization, conditions are created when healthy defense mechanisms are not enough, neurotic (pathological) defense mechanisms are connected (for example, neurotic depression, obsessive thoughts and actions, fears, phobias). It is equally important to consider psychosomatic disorders as a result of such disorders - object relations (with the world, with people, with oneself), self-esteem and integrity (for example, narcissists with vulnerable self-esteem often experience emptiness, depression and dissatisfaction with their relationships with others), dysfunction cognitive and family systems and alexithymia as an emotional disorder (“blocking” of feelings, inability to perceive and even name them).

### **3. Neuropsychological recommendations for the provision, recovery and correction of psychosomatic health**

Neuropsychological correction of psychosomatic disorders and diseases helps to improve cerebral circulation, increase the differentiation of cerebral functional systems, activate the interaction of the cerebral hemispheres, increase efficiency and improve well-being. Preliminary diagnostics of the neuropsychic state and computer psychophysiological

examination of the client are carried out, as well as the degree of recovery of the exhausted nervous system is determined. The results of a neurophysiological study of the functional state of the brain of a psychosomatically ill client, the peculiarities of the relationship between his emotional and bodily spheres and a complex of neuro-psychosocial factors of the psychosomatic potential of his health are also taken into account.

The development and implementation of an individual program of neuropsychological correction of a psychosomatic patient should be carried out taking into account the specifics and category of psychosomatic disorders and diseases, in particular: conversion symptoms (hysterical paralysis and paresthesias, psychogenic blindness and deafness, pain symptoms, vomiting) functional syndromes (functional disorders of individual organs or body systems without organic changes: cardiovascular system, gastrointestinal tract, musculoskeletal system, respiratory system). Psychosomatosis (they are based on a somatic reaction to stress with pathological disorders in organs - bronchial asthma, ulcerative colitis, rheumatoid arthritis, etc.) infectious, oncological and colds (more than 2 - 3 cases per year) diseases - they are often accompanied by such disorders: rapid vomiting, poor sleep or lack thereof, lability of blood pressure, manifestations of irritability and conflict, astheno-neurotic symptoms, sexual health disorders, hysterical and depressive reactions, functional disorders of the nervous system. The choice of a target organ is always determined by neural cortical connections that affect subcortical emotional zones to attract certain body systems to stress responses. Excessive physical and mental stress is tolerated by those who have positive emotional health, contact with themselves, adequate self-esteem and a harmonious relationship with the environment.

To increase the effectiveness of the neuropsychological correction of psychosomatic disorders, it is necessary in parallel to comprehensively work a group of specialists with a psychosomatic client: physicians - for a specific psychosomatic illness, a psychologist or psychotherapist - so that a psychosomatic patient can solve his own psychological problems on his own, a nutritionist - according to the client's needs. A psychotherapist who plans a neuropsychological correction preliminarily collects such important data: family history; Psychiatric History; characteristics of the character and model of the client's life; the psychosomatic patient's attitude to the environment (often inadequate - anxious-ambivalent or avoiding and disorganizing, with elements of violence). And also the presence of internal conflicts (between "I want" and "must", between "I endure and will endure")

and "I endure and do not want to endure," etc.) and rigid mechanisms of psychological defense; personal meanings and benefits from illness.

Chronic psychosomatic illnesses often arise and worsen precisely in the second half of life, when a midlife crisis may be inevitable, which may coincide with professional crises. We believe that the expansion of neuropsychological, psychophysiological and personal resources, using technologies of psychological self-regulation is important in psychotherapeutic and corrective work for a psychosomatic patient at this stage of life. These psychocorrectional methods should be applied taking into account the psychosomatic and neuropsychological approaches to the client's problem at an individually defined level of psychosomatic disorders with appropriate psychological characteristics. On the psychotic (problems of security and basic distrust, reinforced by anxieties of destroying one's mental and physical health), borderline (problems of autonomy, self-doubt, which may be accompanied by feelings of guilt, separation anxiety, self-flagellation), neurotic (possible problems of identity, hyperresponsibility, anxiety due to loss of control). At all these levels, there can be a neurotic "fixation" on past events from his life with a subjective experience of anxiety, all this requires long-term (up to several years) therapy. The psychopathologically anxious state of the client can be explained by neuro-psycho-programming of the brain, the peculiarities of its neurocognitive processing of information about the external world. In the neurocognitive concepts of Solso (2006), brain dynamics when creating a false alarm begins with activity in the middle part of the temporal lobe, then moves to the level of the associative zone, and during the reconstruction of anxious thoughts, memories can be perceived by the brain at the level of real.

A negative emotional state associated with anxious thoughts maintains hormonal levels that are unfavorable for the body, as a result, the patient develops stable psychosomatic disorders. In our opinion, the task of a neuropsychologist is to restore brain functions and stimulate the formation of neural connections that will contribute to healing thanks to the client's self-hypnosis on the joint development of a model of psychosomatic health with him. The results of cognitive neuroscience have confirmed that words without meaning cannot actualize centers in the brain. On the other hand, modeling the state of psychosomatic health based on self-hypnosis, comparing limitations in sick and healthy people and changing attitudes can affect the success of neuro- and psychocorrection at the same time. At the same time, neurocorrection is impossible without bodily techniques, sensorimotor, breathing and relaxation exercises, which contribute to the

formation of new neural connections for an adequate interaction of the client with the world, without psychosomatic disorders and diseases.

The classic neuropsychological methods of autogenous training are: deep and complete relaxation of the muscles of the whole body, voluntary regulation of the rhythm of cardiac activity, breathing techniques with mastering the rhythm and frequency of breathing, verbal formulas of self-hypnosis, mobilizing exercises, general strengthening of the emotional-volitional sphere; yoga therapy techniques, neuropsychological exercises for the development of intelligence and memory (using desensitization of the eyes and successive inhalation and exhalation). The proposed methods are effective in combination with psychotherapy in order to reduce anxiety and mitigate conflicts (hypnosis, relaxation, rational and suggestive therapy), herbal medicine and drug therapy to improve the somatic state (Eliseev, 2003).

Effective technologies of neuropsychological correction are relaxation techniques within the framework of cognitive-behavioral therapy (muscle relaxation, deep breathing, visual images), complex meditations, work with fears (verbalization of fears), role-playing games and constellations according to Hellinger. The task of the neuropsychologist is to reduce the activity of the pleasure center by using the connections between the prefrontal cortex and the adjacent core. This therapeutic goal is achieved through the formation of a thought culture and critical inner speech. An effective method of direct work with the brain at the level of its physiology, biofeedback by EEG (neuro-hoop) during meditative practices. The quality and duration of sleep, nutrition, physical activity, mental health, "information diet" (completely avoid television and non-constructive content on the Internet) are important (Tkach, 2016).

Along with the further improvement of clinical and clinical and biological research in the system of rehabilitation measures, sociological and psychological studies of the patient's personality and his living conditions are becoming increasingly important. On the basis of these studies, experts give recommendations on the organization of the patient's lifestyle in order to eliminate those psycho-traumatic factors that contribute to the return of the disease. The main link of the rehabilitation system is the organization of such activities of patients, which ensures the development of their personality and compensation for lost abilities in the process of illness. Both for the prevention of neuropsychiatric disorders and for the prevention of psychosomatic diseases, the principles of psychohygiene and the activities carried out in this area are of paramount importance. Personal psychohygiene uses techniques and methods of individual psychoprophylaxis - AT, psycho-gymnastics of the face, self-help methods,

etc., which are used to prevent the negative consequences of psycho-traumatic factors (Kotsan et al., 2011). In our opinion, personal psychohygiene, psychohygiene of work and life, family and sexual life, psychohygiene of sports, work and communication should be used in a complex of neuropsychological measures aimed at preserving and strengthening neuropsychic health and prevention of neuropsychiatric disorders in psychosomatically healthy people.

In order to correct psychosomatic diseases in children, modern domestic researchers have developed methods of projective drawing "My future", "Good and evil", the priority of which is confirmed by patents of Ukraine. Tests reflect the conscious and unconscious aspects of the mental structure of the personality, self-esteem, zones of frustration, peculiarities of motivation and allows to identify asthenia. The testing was supplemented by neurophysiological studies of the functional state of the brain, which made it possible to reveal a decreased level of activity of processes in the subcortical structures - overexcitation, functional blockade of thalamo-cortical connections and dysfunction of the brain. The complex using of psychological methods for the correction of psychosomatic pathology and metabolic therapy is associated with the improvement of thalamo-cortical connections and the removal of overexcitation. The use of psychocorrectional influences led to an improvement in the working conditions of the brain due to the normalization of its perfusion (Mozgovaya et al., 2014).

Neuropsychological self-regulation exercises involve a person's influence on himself with the help of self-hypnosis instructions and include autogenous training technologies (to relieve mental stress and calm down). After that, a person transitions into a special state of hope, trust, faith in the capabilities of the body and in the character of the personality, the formation of the desired mental qualities, while the person does not think rationally, but completely trusts his body. Biofeedback (BFB) - conscious control and voluntary influence on a number of processes that are not felt and realized in the body (biological activity of the brain, heart rate, body temperature, blood pressure, muscle relaxation, etc.), BFB with using electrophysiological equipment, changes and shows (in visual and auditory versions) the results of influencing the course of one or another arbitrary physiological process. Meditation as a series of mental actions, the purpose of which is to achieve a special state of the human body, characterized by immersion in deep physical and mental peace, isolation from the outside world. Meditation gives the ability to think - operating with images on a previously set topic and is achieved by concentrating internally directed attention, greater muscle

relaxation (relaxation) and emotional peace, which effectively protects the body from the destructive effects of stress, regulates breathing, normalizes the pulse, and relieves the acuteness of anxiety and fear (Kotsan et al., 2011).

A practical guide written by Malkina-Pykh (2005) is an effective guide to diagnostic and psychotherapeutic techniques that can be used for psychosomatic disorders, in particular, methods of suggestive psychotherapy, gestalt therapy, body-oriented psychotherapy, neurolinguistic programming, psychocorrection. The researcher believes that any psychosomatic disease is a property of the human body, it cannot be explained by studying the properties of only one of the subsystems - mental or somatic, and only understanding their interrelation can make it possible to effectively influence psychosomatic disorders of psychocorrection and psychotherapy.

Considering all of the above, neuropsychological correction in psychosomatic diseases should be carried out in combination with psychotherapy, mainly in all its directions. In our opinion, important factors for the implementation of individual neuropsychological correction for a psychosomatically ill client are: positive psychotherapy, gestalt therapy, cognitive-behavioral psychotherapy, art therapy, body-oriented psychotherapy, suggestive psychotherapy, family psychotherapy. In any case, the client's awareness of the emotional mechanism of psychosomatic manifestations, which can come to him through trance, verbal or non-verbal actions, creativity, metaphor or dance movements, will reduce the effectiveness of psychosomatics. Even in the absence of alexithymia as an individual or family cult to ignore emotions and one's body (feelings are always an indicator of difficult life situations), the brain under any circumstances will process primarily information about a person's attitude to other people and the world and to himself, which is directly related to features of the cerebral organization, dominance of the right or left hemispheres of the brain and the work of all functional systems. Of course, it is difficult for a person with alexithymia to name their feelings and understand the connection between emotions, relationships and the body, since alexithymia has a protective nature. In this case, neuropsychological correction is able to neutralize psychosomatic symptoms even before therapy, for example, in diseases of the musculoskeletal system, caused at the psychological level by the containment of aggression due to social deprivation. For primary care in order to optimize the client's neuropsychiatric state, a course of neuropsychological work is sufficient: carrying out exercises to relax the muscles of the back with the simultaneous use of techniques of individually selected correct breathing, massage and

neuropsychological exercises. Undoubtedly, the combination of neuropsychological correction technologies and psychotherapy will be an effective rehabilitation measure to recover the client's psychosomatic health in the future.

#### **4. Conclusion**

The mental and somatic spheres are interconnected by an emotional reaction, which is expressed in the form of neurovegetative changes, behavior and physiological pathological changes in an organ or organ system. Emotions are the psychic lever of orientation of a person in its complex living space. The conditioning of psychosomatic disorders through emotional responses to other people and the outside world and their own psychological problems indicates that psychosomatic health can undergo changes, but it can be restored under the influence of neuropsychological correction. Ability for neuropsychological control of emotional reactions and behavior in difficult life or professional situations, awareness of the identity of your physical and mental "Ego", "assertive" ability to get along with oneself is the key to maintaining psychosomatic health and an important criterion for mental health. As a rule, psychosomatic pathology develops according to the "neurotic" type: the presence of internal conflicts, anxieties, mental trauma in the past and "immersion" in the disease, often with its unconscious benefit and the client's explanation that this is happening to avoid an uncomfortable emotional stimulus by rigid mechanisms of psychological defense. Neuropsychological technologies for the correction of psychosomatic health in complex interaction with psychotherapeutic methods contribute to the restoration of normal relations with the world and oneself, which occurs due to the provision of resource functional capabilities of mental activity.

A neuropsychological program for the correction of psychosomatic disorders should be developed in a comprehensive manner, taking into account the specifics and mechanisms of the onset of psychosomatic diseases; age; the results of a neurophysiological study of the functional state of the brain; adverse family and social factors; psychosomatic state of the client; his gender and personality characteristics; pathogenesis of the disease; hereditary predisposition to psychosomatic illness; specifics and categories of psychosomatic disorders and diseases; the degree of recovery of the depleted nervous system and the results of diagnostics of the neuropsychic state. For the purpose of effective neurocorrection, it is first necessary to analyze all these factors and their interrelationships, therefore the

neuropsychological approach to the correction of psychosomatic disorders should be individual, objective, systemic, integrative and highly competent.

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