



# Psycho-Emotional Rehabilitating Means of Overcoming Extreme and Stressful Impact

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## Mini Review

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## Abstract

Strengthening the person's self-sustainability is based, first of all, on the activation of own protective and mobilization mechanism with the maximum use of internal reserves. This provides colossal potential and resources for self-restoring, being a non-drug and, mainly, natural modus in the system of human body functioning, at that, without any side effects. However, in a stressful situation, spontaneous self-activation of individual psychobaggage can be blocked because of emotional-physiological overexertion caused by extreme events, which is observed during almost three years of Russian terrorism in Ukraine. It is in such situations that non-drug psychological techniques and alternative methods of self-rehabilitating can be useful, leading to significant relaxation, reducing the internal overload of the body, allowing a person to transform negative perceptions and feelings into a more balanced positive inner state. The aim our Mini-Review was to systematize experimental, theoretical and review studies, present a complex of anti-stress self-rehabilitation techniques and provide an analysis of their efficiency.

The following 3 types of methods for preventing the occurrence of dangerous psycho-emotional/somato-physiological symptoms and rehabilitation from the consequences arising as a result of stressful influences are being analyzed: (1) preliminary preventive methods, (2) ad hoc created means of psychological emotionally-oriented therapy, (3) ancient, long-known anti-stress bio-energy techniques of (self-)restoration of the body.

It has been established that there is a wide range of various correctional, rehabilitation and health-improving means, the effectiveness of which has been repeatedly confirmed scientifically. However, these methods are stubbornly not supported by official medicine and the medical-pharmacological community, so they have not received widespread distribution and recognition. Nevertheless, the benefits and efficiency of many of the analyzed anti-stress restorative/rehabilitative means have been proven in real life in the process of providing psychological assistance to Ukrainians affected by the Russian invasion of Ukraine.

**Keywords:** Prophylaxis-Rehabilitation Techniques; Ancient Eastern-Latin American Body-Restoring Means; Russian Terrorism in Ukraine; Internal Protective-Mobilization Mechanism

## Introduction

Nowadays, people face unprecedented stressful situations (pandemics, wars, diseases, natural disasters). Extreme-crisis factors to one degree or another traumatize the most important life support systems of the human body. Therefore, the formation of stress-resistance of the individual is of paramount importance, but depends on various psychological, social, personal, medical, pedagogical, economic and other factors. Strengthening the person's self-sustainability is based, first of all, on the activation of own protective-mobilization mechanism with the maximum use of internal reserves. This provides colossal potential and resources for self-restoring, being a non-drug and, mainly, natural modus in the system of human body functioning, at that, without any side effects. However, in a stressful situation, spontaneous concentration of efforts for self-activation of individual psycho-baggage can be blocked because of emotional-physiological overexertion caused by extreme events. This is what is being observed during the almost three-year Russian terrorism in Ukraine. It is in such situations that non-drug psychological techniques and alternative methods of self-rehabilitating (such as emotional stimulation, improved attention control, music-/art-/aromatherapy, breathing gymnastics, sports, Reiki, Yoga, meditation, guided imagery, acupuncture, etc.) can be useful, leading to significant relaxation, reducing the internal overload of the body, allowing a person to transform negative perceptions and feelings into a more balanced positive inner state.

The *aim* our Mini-Review was to systematize experimental, theoretical and review studies, present a complex of anti-stress self-rehabilitation techniques and provide an analysis of their efficiency, but the volume of such articles does not allow for the use of broad and detailed citations of publications. Therefore, we have included in the article only some of them, the most significant and recently published. The research *hypotheses* are as follows: 1) in the world scientific literature there is a varied range of effective means/methods of psycho-emotional rehabilitation and correction, 2) however, all these techniques are not enough widely, actively shared and implemented among the population (militaries, rescues and civilians), both during preliminary training to cope with psycho-emotional overload or during the period of self-recovery after crisis events, and among individuals who directly found themselves in high-risk areas in the context of current stressful-extreme situations.

## Methods

A systematic search strategy was used to identify scientific articles, published in reputable, peer-reviewed

world journals and found in the Scopus, Web of Science, PsycInfo, Google Scholar, PubMed and other databases (totally, 134 publications selected). The search was carried out in August-October 2024. The search string included the keywords "*prophylactics, prevention, correction, psychological assistance/help, self-/rehabilitation of the body, stress-overcoming means*".

## Results

To increase self-resilience, prevent the occurrence of symptoms of psycho-emotional maladaptation and combat dangerous psycho-emotional and somatic-physiological consequences that arise because of stressful effects, 3 types of prevention are used: (1) preliminary preventive methods, (2) ad hoc created means of psychological emotionally-oriented therapy, (3) ancient, centuries-old known anti-stress bio-energy techniques and methods of (self-)rehabilitation of the body. Below a brief analysis of each of these types is presented.

Preventive prophylaxis involves the use of already known methods. These include the following subgroups of techniques: a) *physical activity* (various sports, walking/biking, hippotherapy, active rest in nature, morning exercises, etc.); b) *relaxation techniques* (breathing exercises, art-/music-/aromatherapy, cinema/theatre, reading, painting, meditation, etc.); c) *autogenic means* (self-persuasion, self-hypnosis, ideomotor training, E. Jacobson progressive muscle relaxation, guided imagery, self-reprogramming of own thoughts from anxious-negative way to optimistic-positive one, sensory reproduction of images, etc.).

Over the past two decades, the number of scientific publications worldwide on anti-stress techniques has increased, providing experimentally substantiated evidence of the effectiveness, benefits of the abovementioned means/methods, some of which deserve separate analysis and citation as the most indicative and worthy of attention, namely. It was established that stress level was reduced due to the contact with nature experience that was statistically confirmed by two physiological biomarkers of stress – salivary cortisol and alpha-amylase [1], progressive muscle relaxation, deep breathing, and guided imagery increased the state of relaxation at both the psychological and physiological level [2], besides, Jacobson's progressive muscle relaxation decreased the anxiety [3] and intensity of myofascial pain [4].

Art-therapy is aimed at achieving release from psycho-emotional distress through various means (music, dance, toys, sand, clay, drawing and other tools) in order to obtain a harmonization of the inner state, restoration of mental balance and healthy body functioning. Numerous recent

studies have confirmed the positive impact of expressive art-therapy for the people with anxiety, depression, etc., as this therapy involves such a type of activity that helps people express their emotions, gain intrinsic mental satisfaction, release psychologically and achieve spiritual catharsis [5].

Horse riding has a biomechanical, emotional and bio-energetic effect on the human body, which occurs through the movement of the horse's back muscles, which are transmitted to the rider. Hippotherapy provided benefits to the improved posture, motor skills, control of balance, muscle tone, psychological, cognitive and social spheres, and enhancement in the performance of a person's daily activities after treatment with horses [6].

Importantly more than interestingly, the benefits of such a technique as self-hypnosis or self-persuasion are also under detailed investigation and the results of a recent research were presented in an authoritative journal [7]. The authors clearly highlight that «the role of the self in hypnotherapy and hypnosis could increase feelings of self-efficacy, especially given that it can be considered a skill that can be advanced and implies self-control and not “mind-control”»; moreover, this study convincingly demonstrates that it is in no way a matter of one person exercising control over another; when Self is involving during self-hypnosis there is no other person, except the same one who fulfils control of his own reactions/behavior, and it is this fact that the authors emphasize declaring that the implementation of self-hypnosis potentially provides an opportunity to change the commonly held view that hypnosis involves giving up control to another [7, p. 1, 8].

Psychological emotionally-oriented, ad hoc created means, leading to a significant leveling of negative psycho-emotional reactions are less numerous since the investigation should be aimed at the solving of concrete immediate tasks. Nevertheless, a special correction program was designed for developing self-regulation skills, managing person's psycho-emotional state and enhancing a positive attitude [8]. In the other research, Shvets [9,10] provided psychosocial assistance in group by implementing a set of various projects, namely: a) the project “Toy Therapy Room” (author's method of V. Nazarevich) had as objective an active tactile interaction of the participant with soft toys, sorting of material by color, size, theme, level of access and forms of interaction with them in the set; b) “Miracle on the Wall” was aimed to create a visually filled space with symbolism and naive painting, created on the basis of reproducing of the paintings; c) “Hibuki Therapy” (author's method of D. Sharon) provided for tactile and sensory integration of traumatic experience through the use of the therapeutic toy Hibuki; d) “Military Field Art” involved uniting artists,

craftsmen, children, and students of art circles around the idea of artistic and meaningful transformation of remnants of military ammunition and equipment into works of art, transforming them into the intangible cultural heritage of the nation; e) “Art without Limits” was focused at integration and a barrier-free approach to self-realization of people with disabilities and interaction of the target audience through the means of visual art. All these projects involved both active forms of work (art-therapy, collaborations, learning programs) and passive ones (webinars, master classes, trainings, meetings, working group meetings, thematic meetings, visits to planned exhibitions). Each technique that was used evidently demonstrated its benefits, potency and utility.

The ancient-Eastern and ancient Latin American bio-energy methods of (self)rehabilitation of the body have long been known to effectively increase adaptive capabilities and stress resistance, improve memory and cognitive functions, and reduce various symptoms of psycho-emotional maladaptation. Such techniques as Yoga, Reiki, Mindfulness, positive and health-optimizing thinking, stress-management training have beneficial impact on the self-regulation of an individual in stress [11-19]. The results of the first study on Capoeira, a holistic Latin American movement practice, showed its benefits on motor-cognitive functions, eye-hand action coordination and dosed executive functions in children [20]. More detailed results also evidence Capoeira as a possible strategy focused at human health in the terms of bettering body composition (waist, bones, muscle mass), functional capacity, metabolic aspects with chronic reduction in plasma triglycerides and acute reduction in blood glucose, and improving parameters of the cardiovascular system with increased maximal oxygen consumption, reduced heart rate, optimized pressure and parasympathetic nervous activity at rest [21].

## Discussion

Extreme events/situations that lead to stress produce overexertion of the body as a reaction of the human body to conditions that are unusual for it. Stress usually occurs when changes (real or false) happen in life that disrupt the usual daily balance of a person. Stress induces a normal process of adaptation to new conditions, which can be accompanied by internal discomfort, cause anxiety, uncertainty, loss of self-control and psycho-emotional destabilization. At the same time, it is precisely due to stress that a person can mobilize, self-concentrate, acquire new personal or professional skills. Therefore, a person should try to live according to the principle of ancient-Eastern wisdom, which says: “If you are ready for change, you are ready for anything,” but for obtaining this objective and realize it in life one has to be prepared and trained. This is precisely the primary goal of

all psycho-emotional rehabilitation means, namely, to train the ability to abstract from negative facts and events, reduce the degree of emotional tension, relieve the manifestation of stressful states, prevent the emergence of undesirable consequences, thereby strengthening personal mobilization resources.

Finally, it should be emphasized that many of the above analyzed anti-stress recovery and rehabilitation means were used during the three-year Russian invasion of Ukraine. They were applied in different Ukrainian cities, both individually with a person and in Psychological Aid Centers for various categories of the population (militaries, rescuers, civilians, medical personnel) in group and have clearly proven their usefulness and effectiveness.

## Conclusions

Our research confirms both hypotheses. It has been established that there is a wide range of various correctional, rehabilitation and health-improving means, the effectiveness of which has been repeatedly confirmed scientifically. However, these techniques are stubbornly not supported by conventional medicine and the medical-pharmacological community, so they have not received wide distribution and recognition. The obvious core of this tendency is that the goals and objectives of classical pharmaco-medicine do not include the popularization and implication of these means, since the endeavors aimed at their practical introduction would contradict and destroy the long time and traditionally employed professional-financial strategy of all pharmacomedical unifications worldwide.

From our point of view, it would be necessary and appropriate to conduct a comprehensive systematized review of the currently existing tools of anti-stress self-restoration of the body, which may represent a kind of reference book for all those wishing to become familiar with the methods of stress management, stress prevention and rehabilitation after negative emotional overload. This is what we plan to contribute as the prospects of our further research.

## Declarations

### Author contributions

Andreyanna Ivanchenko: **Conceptualization**, Methodology, **Investigation**, Formal analysis, Validation, Data curation, Project administration, **Supervision**, **Writing-original draft**, **Writing-review and editing**. The author has read and approved the submitted version.

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