Maksimenko V., Podolskiy A., Stebliuk V. The using of modificated plastic anti-stress exercises in the mental-physical rehabilitation for participants of ukrainian revolution of dignity, who have the post-traumatic stress disorder. Journal of Health Sciences. 2014;04(02):141-146. ISSN 1429-9623 / 2300-665X.

The journal has had 5 points in Ministry of Science and Higher Education of Poland parametric evaluation. Part B item 1107. (17.12.2013).
© The Author (s) 2014;
This article is published with open access at Licensee Open Journal Systems of Radom University in Radom, Poland
Open Access. This article is distributed under the terms of the Creative Commons Attribution Noncommercial License which permits any noncommercial use, distribution on demortied the original author(s) and source are credited. This is an open access article license dunder the terms of the Creative Commons Attribution and reproduction in any medium, provided the work is properly cited.
This is an open access article licensed under the terms of the Creative Commons Attribution and reproduction and reproduction in any medium, provided the work is properly cited.
This is an open access article licensed under the terms of the Creative Commons Attribution not commercial License (http://creativecommons.org/licenses/by-nc/3.0) which permits unrestricted, non commercial License (http://creativecommons.org/licenses/by-nc/3.0) which permits unrestricted non commercial License (http://creativecommons.org/licenses/by-nc/3.0) which permits unrestriced non commercial License (http://cr

use, distribution and reproduction in any medium, provided the work is properly cited.

Conflict of interest: None declared. Received: 29.11.2013. Revised 21.12.2013. Accepted: 15.02.2014.

## THE USING OF MODIFICATED PLASTIC ANTI-STRESS EXERCISES IN THE **MENTAL-PHYSICAL REHABILITATION FOR PARTICIPANTS OF UKRAINIAN REVOLUTION OF DIGNITY, WHO HAVE THE POST-TRAUMATIC STRESS** DISORDER

Prof. V. Maksimenko\*, Dr. A. Podolskiy\*\*, Prof. V. Stebliuk\*

## National Technical University of Ukraine (KPI)\*, Majdan Hospital\*\*, Kyiv, Ukraine

## Abstracts

Posttraumatic stress disorder is the most common pathology that accompanies social, natural or man-made disaster. Massive confrontation during the Ukrainian Revolution 2013-2014 winter have led to a high frequency a psychotic disorders than differentiated like as PTSD.

We suggest to use a modified plastic anti-stress exercises in the form of adaptive psycho kinezio therapy for the group rehabilitation. Sessions were held for group of 30 - 40 people at places of activists location.

As a result of the sessions, showed a significant reduction in the incidence of psychotic disorders.

**Keywords:** post-traumatic stress disorder, psychological and physical rehabilitation exercises.

Posttraumatic stress disorder (PTSD, "Vietnam syndrome", "Afghan syndrome", etc.) a severe mental condition that occurs as a result of single or repetitive stressful situations, such as military operations, severe physical injury, sexual abuse, or threat of death. In the PTSD group characteristic symptoms such as psychiatric experiences, avoidance or loss of memory of the traumatic event and the high level of anxiety persists for more than a month after trauma [1].

During the campaign of civil disobedience in Ukraine, which entered the history as a Revolution of dignity (December, 2013 – February, 2014), participants were state of chronic stress, exacerbated in times of escalating of violence (pict. 1, 2, 3).



Pict. 1. Activists at the barricades after a night assault (19/02/2014).



Pict. 2. Victim of snipers.



Pict. 3. Majdan Hospital in the St. Michael Monastery (Church of St. John). Girl of 16 y.o. Injuries of the legs by a grenade. Anesthesiologist – prof. Vsevolod Stebliuk.

At the end of the active phase of confrontation, during the first week, was marked a large number of acute psychotic disorders, episodes of depression and hysterical reactions in the participants.

General psychological background activists characterized by exhaustion and high anxiety, alcohol abuse has become common.

To save the and restore the mental state of a of activists, by the psychological health service of Majdan Hospital together with the Faculty of Biomedical Engineering, National Technical University of Ukraine, has developed a program of psycho-physical rehabilitation as a form of group sessions.

The basis for the sessions was the plastic anti-stress exercises (PASE) [2,3] which was modified in adaptive psycho-kinetics therapy. PASE is a physiotherapy method, that combined with autogenic training (developed by Professor AV Popkov, Russia in 2005), involves the muscle isometric exercise in low mode.

Modification of the method was that the therapist posed the task of forming image of an animal or plant in patient's mind and to reproduce its actions, movements, first imaginary, and next kinetically with the execution of each exercise for 2-3 minutes until light feeling of fatigue, followed by performance on range of 5 to 10 exercises daily in the evening.

Examples of exercises:

"Birch". Imagination image: I - birch. Legs and body - trunk, arms - Hill. When the breath begins to bend the branches to the right, pulling the trunk (torso). It is important to feel the isometric tension of the shoulder girdle and lateral muscles of the trunk. Starting position - standing. Performance: implemented variations from Central visovoho position aside, both during wind gusts of varying intensity. Repeat in the other direction. Go to vibrations from side to side. Repeat - 10 times.

**"Eagle"** imagination-image: eagle sitting on the edge of a cliff, looks, then looks like wings and flies. After earning a height eagle soars in the sky, turning from one or the other side. Periodically it looks like wings and climbs. It is important to feel fly in the sky, its own weightlessness, the joy of flight. The original standing position. Legs bent. Hands summed up the level of shoulders, hanging loosely from the elbow "folded wings". Performing exercises: straighten hands make several strokes while on springy legs. Next - flight simulator. Hands and with them the body is leaning to one side then the other. Periodically made underneath the hand movements. Duration of "flight" is defined patient individually, depending on his feelings.

**"Medusa".** Imaginative Image: Jellyfish freely oscillates in the water column. The starting position is the same as the "eagle sitting." Fulfillment. Hands moving in waves from the periphery to the body, like banishing water. Legs bend and unbend elastic at the knee joint to the beat of hand movements.

Formation of positive images imagination balancing component of the mental and physical activity, which is apparent imitation of the movements of animals or plants has sympatholytic effect, accelerates the inactivation of catecholamines in the blood.

Thus, the combination of psychotherapy mechanisms of self-hypnosis with kinetic effects of exercise can achieve the desired adaptogenic effect in patients with PTSD without drugs and third-party correction.

Sessions were held at the Kiev municipality and the Ukrainian House. Daily sessions involved in 30-50 activists. All our data rehabilitation sessions attended by more than 300 activists. Over 400 activists who had PTSD were rehabilitated in terms of health-resort centers in Ukraine, where the proceedings our proposed method.

We believe that the reduction in the number of acute psychotic reactions resulted from ongoing rehabilitation.

## References

1. "Post-Traumatic Stress Disorder: The Management of PTSD in Adults and Children in Primary and Secondary Care" -NICE Clinical Guidelines, No. 26. Gaskell (Royal College of Psychiatrists)-2005.

2. Subthreshold Posttraumatic Stress Disorder in the World Health Organization World Mental Health Surveys/ Biol Psychiatry. 2014 Apr 12. pii: S0006-3223(14)00241-8

3. Попков А.В. Антистрессовая пластическая гимнастика /А.В. Попков. – М.: Советский спорт, 2005. – 164 с.

4. Стеблюк В.В. Застосування психокорекції та антистресової пластичної гімнастики в санаторно-курортному лікуванні пацієнтів з артеріальною гіпертензією / В.В. Стеблюк, О.А. Золотарьова, О.В. Подольський // Медична реабілітація, фізіотерапія, курортологія. – 2012. –№ 1. – С.16–18.