

**Психіатрія, наркологія, неврологія та медична психологія**

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**COMBINED USE OF ANIMAL-ASSISTED THERAPY AND PSYCHOTHERAPY IN THE REHABILITATION OF COMBATANTS**©Boris Mykhaylov<sup>1</sup>,©Tanya Aliieva<sup>1</sup>, Tanya.aliieva2011@gmail.com,©Inna Vashkite<sup>2</sup>, i.vashkite@karazin.ua

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*The work is devoted to solving the problems of definition, etiology and pathogenesis of primary diagnostics of posttraumatic stress disorder in combatants of the antiterrorist operation, who had rehabilitation in sanatorium and resort conditions. As a result of the study, the positive impact of hypotherapy on the psychological state of combatants in the antiterrorist operation was shown, which was applied on the basis of the Psychosocial Rehabilitation Center Feldman Ecopark in sanatorium and resort conditions with medical and psychological rehabilitation. The main groups (clusters) of neurotic, pathopersonological and psychopathological manifestations in this contingent of patients are identified. The study also showed that the testees experienced childhood sexual abuse (or forcing entry into sexual relations with someone from the immediate environment of the child) correlated with higher levels of both depressive and anxiety symptoms later in adulthood. Premorbid personality characteristics of patients with posttraumatic stress disorder are heterogeneous. Although people in natural conditions that provoke anxiety are especially likely to develop post-traumatic stress disorder, these disorders often arise in obsessive, dependent and even schizoid personality type. However, it would be logical to expect that those individuals accessed via the questionnaire with higher level of neuroticism (or «big anxiety») are more likely to develop symptoms of posttraumatic stress disorder than those of phlegmatic temperament.*

**Key words** Post-traumatic stress, disorder, maladaptation, demobilized, antiterrorist, operation, medico-psychological, rehabilitation, sanatorium, resort conditions, Equine, Assisted, psychotherapy.

**Introduction**

Modern ideas about posttraumatic stress disorder (PTSD) as a diagnostic classification unit developed in 70–80 years of the latest century, but the disorders that develop as a result of a catastrophe (unlike conventional psychogenic states) have been described and diagnosed before [7]. Subsequently, the impact of posttraumatic stress on combatants` subsequent mental state is deeper than the study of the Vietnam War has indicated. Because the symptoms described Post Vietnam syndrome did not meet any of the general entities that M. Horowitz (Horowitz, 1980) proposed to distinguish as a separate syndrome, they were defined as posttraumatic stress disorder [5].

Systematic studies of stresses, caused by natural and industrial disasters date from the 50–60-ies. The prevalence of posttraumatic stress disorder (PTSD) in the population depends on the frequency of traumatic events [5].

### **The purpose of the article**

Comprehensive psychosocial rehabilitation of 375 combatants was exercised during the joined program of Feldman Ecopark Center of psychosocial rehabilitation for children and adolescents (further – the Center), Department of Psychotherapy of the Kharkov Medical Academy of Postgraduate Education (KMAPE) during years 2015–2016.

The study of those suffering from PTSD has revealed that during their childhood the testees experienced psychotrauma more often than the testees who do not suffer from the aforementioned disorder, and were deprived of coordinated support from their parents. There are also higher rates of divorce among the parents of those suffering from PTSD [3, 4].

The study also showed that the testees experienced childhood sexual abuse (or forcing entry into sexual relations with someone from the immediate environment of the child) correlated with higher levels of both depressive and anxiety symptoms later in adulthood [7].

Premorbid personality characteristics of patients with posttraumatic stress disorder are heterogeneous. Although people in natural conditions that provoke anxiety are especially likely to develop post-traumatic stress disorder, these disorders often arise in obsessive, dependent and even schizoid personality type. However, it would be logical to expect that those individuals assessed via the questionnaire with higher level of neuroticism (or «big anxiety») are more likely to develop symptoms of posttraumatic stress disorder than those of phlegmatic temperament.

The risk of post-traumatic stress disorder increased significantly in those constantly exposed to harmful negative social factors, such as intractable interpersonal problems or adverse conditions [6, 7].

It should be noted that all of the testees had problems in microcommunity such as, for example, conflicts in the parents` or children`s family, divorce, conflicts with friends, colleagues etc.

In the etiology of posttraumatic stress disorder there are three groups of factors that play the leading role.

#### **I. Hereditary-organic.**

Constitutional and typological features of the central nervous system and features of the accentuated personality should be referred to this group.

#### **II. Psychoemotional or psychogenic.**

These are acute or chronic factors of external action mediated through mental health, which had both cognitive and emotional significance, and consequently caused psychological diseases.

#### **III. Psychoorganic.**

Different premorbid organic (traumata, infections, toxic poisoning, hypoxemia etc.) compromising of the integration cerebral systems of suprasedgmental level, primarily of limbic-reticular complex.

For men, the most common factors involved military events car accidents, local man-made disasters and emergencies.

From a clinical point of view, post-traumatic stress disorder are related to personal and reactive states developing as a result of a previous emergency, which was of the pathogenic-psychogenic nature for the individual (e.g. the situation represented a direct threat to the biologically or socially valuable human existence, ownership of or relatives, family, friends catastrophic situation of global or individual nature – such as natural disasters, war or man-made disasters, etc.).

That is why medical and psychological rehabilitation should be a mandatory part of complex rehabilitation of demobilized members of the antiterrorist operation, which led to its active and gradually rebuild the mandatory involvement of the comprehensive rehabilitation of persons affected by participation in the antiterrorist operation.

The rehabilitation program was implemented in three stages [8-10].

1. The initial stage (setting therapeutic contact compliance) – 2–3 days. Carrying out doctor structured diagnostic interviews, psycho-diagnostic sessions – by expert psychologists; assigning individual therapy and rehabilitation programs in multidisciplinary discussion; coordinating individual treatment and rehabilitation program with the patient; starting individual treatment and rehabilitation program.

2. Main (rehabilitation) stage – 14–18 days. Carrying out individual psychotherapy, group psychotherapy, relaxation techniques with the assimilation of elements of autogenous training (constantly), physiotherapy, exercise therapy, aromatherapy, reflexology and other non-drug methods of influence (constantly), drug therapy (if indicated).

3. Supporting (completing) stage – 2–3 days. Carrying out individual psychotherapy, relaxation techniques with the assimilation of elements of autogenous training (constantly), completion of all other medical measures.

### **Materials and methods**

One of the main aspects of the rehabilitation of the combatants is to restore their social functioning in peacetime. Psychocorrectional important aspect is the establishment of human interaction with nature [11].

Animal-assisted therapy provides a holistic and experiential approach to healing in which the relationship between the combatant and the registered therapy animal is the agent of change. Equine assisted psychotherapy is an emerging form of therapeutic intervention in which horses are used as tools for combatants to gain self-understanding and emotional growth. Equine assisted psychotherapy is a type of animal assisted therapy, a field of mental health that recognizes the bond between animals and humans and the potential for emotional healing that can occur when a relationship is formed between the two species. Equine assisted psychotherapy has been applied to address a wide range of mental health and basic human development issues including mood disorders, attention deficit disorders, relationship and communication issues, behavioral disorders, substance abuse and chemical dependency, eating disorders, childhood abuse issues, and post-traumatic stress disorder. The purpose of animal assisted therapy is to provide interventions that would not be possible with only a human provider. Animals interact with humans in a variety of therapeutic forms, but the basis of the interaction is lessening of human stress and increase in mutual trust [12].

These activities are most often performed on the ground (rather than riding), and include such things as grooming, feeding, haltering, and leading the horse. During the process of working with the horse, the therapist and combatant engage in talk therapy, processing feelings, behaviors, and patterns. The ultimate goal for the client is to build skills such as personal responsibility, assertiveness, non-verbal communication, self-confidence, and self-control. Equine assisted psychotherapy focuses on living in the now. The movement of a horse and the physical environment of nature helped calm the patient. Individual sessions are structured so that all parties are equally involved. Equine assisted psychotherapy supports using the ground work technique that gives the patient opportunities to make solutions with the horse. In EAP, a patient must remain in control and pay attention to details. By letting the individual ride in a saddle, the horse allows the individual to acquire and display dominance, an important aspect,

but not the driving goal of Equine assisted psychotherapy. These activities help build assertiveness, responsibility, and confidence [13-15].

Horses provide an additional aspect of the therapeutic process that many other animals cannot. They are prey animals and, therefore, they do not trust easily, demand respect to provide respect, and due to their size are not easily bullied or manipulated. Horses also live by a set of rules that is based on the family system. They are herd animals and their survival depends upon communication and their relationship with the other herd members. Horses read subtle changes in human body language, emotion, positive and negative energy, and basic intentions of others. Equine assisted psychotherapy utilizes the horse's responsive nature as a therapy tool and part of the therapy team's options for treatment. They are naturally curious, have individual personalities, and mirror human behavior [2].

The structure of Equine assisted psychotherapy (EAP) provides a unique atmosphere for the client to work through personal challenges. Equine assisted psychotherapy provides clients with in-the-moment experiences to learn how to manage current situations and future challenges with a focus on personal strengths and resources. Therapy sessions are generally on the ground as opposed to in the saddle. Equine assisted psychotherapy supports the approach that «ground work» provides the client with opportunities to generate solutions as the horse is a component of the process rather than the primary focus. This approach also allows for greater transparency of issues related to communication and relationship between the horse and veteran. An Equine assisted psychotherapy practitioner and a horse handler are part of the team, but the basis of therapy occurs between horse and veteran. Observing, debriefing, and processing are the main roles of the practitioner while the horse handler assures safety and assists the practitioner to interpret the body language of the horse [1].

In this experiential based therapy it is by interacting with the horse that the combatant gains greater insight into themselves through experiencing natural consequences, successes, and mistakes. There is something to be learned at every step of the process even including the combatant's selection of the horse. A typical Equine assisted psychotherapy session involves the combatant receiving a task to complete with a horse while they are in an enclosed space such as an arena and are free to move around. This facilitates safety and freer interaction as horses, being prey animals, have a basic instinct for flight rather than fight. The lack of restraint on the horse creates a challenge that requires most humans to approach the created situation from a new angle. The horse handler sees to the safety of horse and combatant, and the practitioner observes but does not intervene during this portion of the interaction, which generally lasts about one hour. There are various rules related to the equine activities, which often include no touching or bribing the horse. Typical coping mechanisms such as bullying or manipulating are not effective and new solutions and forms of communication must be developed to create successful outcomes.

Insight is often developed through feelings and emotions generated through working with the horses; these interactions often mirror experiences that clients acquire in society and can be useful during therapy.

A common therapeutic activity is to have a horse move through an obstacle course to a desired endpoint. The objective does not have to be met to reach a successful outcome. The manner in which the individual or group functions is a significant piece of any Equine assisted psychotherapy activity and focus for discussion with the practitioner. Debriefing a therapeutic activity provides structure for discussing feelings related to the exercise and issues or concerns that may have arisen during the process, and is conducted immediately post equine intervention. Practitioners facilitate the therapeutic process by allowing and encouraging questions and by asking questions that are specifically related to the

activity and the needs of the combatant involved. During this process connections are often made between interaction with the horses and daily life outside of the arena. Combatants are encouraged to examine their interactions with the horses and reflect upon their feelings related to the horses' responses and the effectiveness of the overall activity. Through this perspective, they are then provided the opportunity to explore solutions and new approaches with the ultimate goal being the development of new skills that may be applied to everyday life. Issues and concerns are also commonly revealed during the equine intervention that may later be explored in greater depth during a session that is arranged between combatant and practitioner. Metaphorical learning is a core concept of Equine assisted psychotherapy; combatants are given simple tasks to complete with a horse which are later debriefed with the practitioner. It is in relating these metaphors to personal situations that the practitioner may assist combatants in acknowledging and approaching their challenges and working toward positive change. As Equine assisted psychotherapy is experiential in its nature, it is the process of interacting with the horses that aid the combatants in gaining insight into themselves. The actual activities and the completion or lack of completion of the stated goals are far less important than the process and the exploration of results [1, 2].

A basic Equine assisted psychotherapy activity is the seemingly simple act of placing a halter on a horse. The horses are free in an arena, and the first step in the process is to select a horse. All of the horses have unique personalities and therefore provide unique challenges to the combatant. The obstacles and challenges faced in the arena with the horse often mirror those that are presented in daily life for a combatant with PTSD. The metaphors reveal themselves in how the combatant perceives and approaches the challenge, and are later discussed during the debriefing process and in therapy. The practitioner and experienced horse handler observe each piece of the process including: how the combatant approaches the horse, how the combatant reacts if the horse does not cooperate, if the combatant chooses a different horse if presented with resistance from an initially selected horse, how the team works together in case of a group activity, if an individual takes over in a team, if the combatant gives up, if anger or another strong emotion is involved, and more. It is also of note if the combatant did or did not accomplish the task and what their reaction was to this, but only for the purpose of therapy and insight and not in relation to deeming the task a success or failure.

### **Results and discussion**

It has been hypothesized that the basis for PTSD symptoms is chronic hyperstimulation of the Autonomic Nervous System which leads to a classic fight or flight response and subsequently many of the previously mentioned symptoms experienced by a combatant suffering from the condition. Being prey animals, horses experience this state most all of their existence and depend on it for survival, but as they are herd animals, they must also manage to learn effective communication and develop the means to cohabitate in their community or they will be isolated from the group, which leaves them highly vulnerable to a variety of threats. This similarity between the combatant and the horse is a basic metaphor of the therapy. Horses are of great assistance in helping combatants with PTSD observe community structured interaction, and are considered by many practitioners to be more of a partner than a tool in this therapy with trust being a major component. Additional areas of benefit are anxiety reduction, decreased isolation, communication, perspective, impulse modification, social skills, assertiveness, self-concept, boundaries, confidence, self-efficacy, creative freedom, and social skills. It is not only the combatant's responses and reactions that are of value in this form of therapy. The horse is an integral part of the process in which they provide valuable feedback not only in the response that the combatant perceives, but also in their responses to the combatant due to their innate ability to read emotion and

intent of others. This feedback comes in the form of ear movements, allowed proximity to the client, and general body posturing that relays significant feedback to the horse professional, who then passes this information onto the practitioner for integration into therapy.

### Conclusions

Based on the results of a study of 375 combatants, the following results were obtained:

- stabilization of the psychoemotional state in 89.54%
- a decrease in feelings of tension and anxiety in 67.85%
- sleep recovery in 87.92%
- increase of efficiency in 54.68%
- formation of long-term future planning (motivational orientation) in 86.79%.

The overall result of the psycho-corrective work with the use of animal-assisted psychotherapy is the readiness of the program participants for further work and the increase of self-regulatory processes.

Thus, the application of the integrative approach of animal-assisted therapy in the context of psychotherapy among combatants has shown its effectiveness in 83.21%

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## **ОДНОЧАСНЕ ЗАСТОСУВАННЯ АНІМАЛОТЕРАПІЇ І ПСИХОТЕРАПІЇ В РЕАБІЛІТАЦІЇ УЧАСНИКІВ БОЙОВИХ ДІЙ**

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Роботу присвячено вирішенню проблем визначення, етіології та патогенезу первинної діагностики посттравматичного стресового розладу у учасників антитерористичної операції, які пройшли реабілітацію в санаторно-курортних умовах. В результаті проведеного дослідження було показано позитивний вплив іпотерапії на психологічний стан учасників антитерористичної операції, яка була застосована на базі Центру психо-соціальної реабілітації Фельдман Екопарк у санаторно-курортних умовах з медико-психологічною реабілітацією. Виявлено основні групи (кластери) невротичних, патоперсонологічних і психопатологічних проявів у цьому контингенті

хворих. Дослідження також показало, що випробовувані відчували сексуальне насильство у дитинстві, яке пов'язано з більш високим рівнем як депресивних, так і тривожних симптомів, пізніше у дорослому віці. Преморбідні особистісні особливості хворих з посттравматичним стресовим розладом є гетерогенними. Хоча люди в природних умовах, які провокують тривогу, особливо ймовірно розвивають посттравматичний стресовий розлад, ці розлади часто виникають у нав'язливого, залежного і навіть шизоїдного типу особистості. Проте, логічно було б очікувати, що ті особи, які отримали доступ через анкету з більш високим рівнем невротизма більш схильні розвивати симптоми посттравматичного стресового розладу, ніж симптоми флегматичного темпераменту.

**Ключові слова:** посттравматичний, стресовий розлад, дезадаптація, демобілізовані учасники, антитерористичної операції, програма, медико-психологічної, реабілітації, санаторно-курортні, умови, іпотерапія.

### СОЧЕТАННОЕ ПРИМЕНЕНИЕ АНИМАЛОТЕРАПИИ И ПСИХОТЕРАПИИ В РЕАБИЛИТАЦИИ УЧАСТНИКОВ БОЕВЫХ ДЕЙСТВИЙ

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Работа посвящена решению проблем определения, этиологии и патогенеза первичной диагностики посттравматического стрессового расстройства у участников антитеррористической операции, прошедших реабилитацию в санаторно-курортных условиях. В результате проведенного исследования было показано положительное влияние ипотерапии на психологическое состояние участников антитеррористической операции, которую применяли на базе Центра психо-социальной реабилитации Фельдман Экопарк в санаторно-курортных условиях медико-психологической реабилитации. Выявлены основные группы (кластеры) невротических, патоперсоналогических и психопатологических проявлений в этом контингенте больных. Исследование также показало, что испытуемые чувствовали сексуальное насилие в детстве, которое связано с более высоким уровнем как депрессивных, так и тревожных симптомов, позже во взрослом возрасте. Преморбидные личностные особенности больных с посттравматическим стрессовым расстройством являются гетерогенными. Хотя люди в естественных условиях, которые провоцируют тревогу, особенно вероятно проявляют посттравматическое стрессовое расстройство. Эти расстройства часто возникают в навязчивом, зависимом и даже шизоидном типе личности. Однако, логично было бы ожидать, что те лица, которые получили доступ через анкету с более высоким уровнем невротизма более склонны развивать симптомы посттравматического стрессового расстройства, чем симптомы флегматичного темперамента.

**Ключевые слова:** посттравматическое, стрессовое расстройство, дезадаптация, демобилизованные участники, антитеррористической операции, программа, медико-психологической, реабилитации, санаторно-курортные, условия, ипотерапия.

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