

ISSN 2509-4327 (print)  
ISSN 2510-4780 (online)

Inter  
**GING**



# Deutscher Wissenschaftsherold German Science Herald

**№ 3/2017**

*Die Zeitschrift „Deutscher Wissenschaftsherold“ ist eine Veröffentlichung mit dem Ziel ein breites Spektrum der Wissenschaft allgemeinverständlich darzustellen. Die Redaktionsleitung versteht sich als Vermittler zwischen Wissenschaftlern und Lesern. Durch die populärwissenschaftliche Bearbeitung wird es möglich unseren Lesern neue wissenschaftliche Leistungen am besten und vollständigsten zu vermitteln. Es werden Untersuchungen, Analysen, Vorlesungen, kurze Berichte und aktuelle Fragen der modernen Wissenschaft veröffentlicht.*

**Impressum**

Deutscher Wissenschaftsherold – German Science Herald

Wissenschaftliche Zeitschrift

Herausgeber:

InterGING

Sonnenbrink 20

31789 Hameln, Germany

Inhaber: Marina Kisiliuk

Tel.: + 49 51519191533

Fax.: + 49 5151 919 2560

Email: [info@dwherold.de](mailto:info@dwherold.de)

Internet: [www.dwherold.de](http://www.dwherold.de)

**Chefredakteur/Editor-in-chief:**

Marina Kisiliuk

**Korrektur:**

O. Champela

**Gestaltung:**

N. Gavrilets

Auflage: № 3 2017 (August) – 23

Redaktionsschluss August, 2017

Erscheint vierteljährlich

**Editorial office:** InterGING

Sonnenbrink 20

31789 Hameln, Germany

Tel.: + 49 51519191533

Fax.: + 49 5151 919 2560

Email: [info@dwherold.de](mailto:info@dwherold.de)

Deutscher Wissenschaftsherold - German Science

Herald is an international, German/English language,

peer-reviewed, quarterly published journal.

№ 3 2017

Passed in press in August 2017

**Druck:** WIRMachenDRUCK GmbH

Mühlbachstr. 7

71522 Backnang

Deutschland

Der Abdruck, auch auszugsweise, ist nur mit ausdrücklicher Genehmigung der InterGING gestattet. Die Meinung der Redaktion oder des Herausgebers kann mit der Meinung der Autoren nicht übereinstimmen. Verantwortung für die Inhalte übernehmen die Autoren des jeweiligen Artikels.

**INDEXING: Google Scholar, WorldCat, InfoBase Index, Journal Index, Citefactor, International Scientific Indexing, JIFACTOR, Scientific Indexing Services, International Institute of Organized Research.**



**JIFACTOR**



**CiteFactor**  
Academic Scientific Journals



**Scientific Indexing Services**



**INTERNATIONAL**  
Scientific Indexing



**MIAR**

<http://miar.ub.edu/issn/2509-4327>

© InterGING

© Deutscher Wissenschaftsherold – German Science Herald

## REDAKTIONSKOLLEGIUM / INTERNATIONAL EDITORIAL BOARD:

**Jurga Bernatoniene**, Dr., Prof.  
Physics Lithuania  
*jurgabernatoniene@yahoo.com*

**Arvidas Galdikas**, Dr. habil., professor  
Physics Lithuania,  
*arvidas.galdikas@ktu.lt*

**Kristina Ramanauskienė**, Ph.dr., Prof.  
Pharmacy, Lithuania  
*kristinaraman@gmail.com*

**Khpaliuk Alexander**, Dr. med. habil., Prof.  
Pharmakologie, Belarus  
*clinicfarm@bsmu.by*

**Arnold M. Gegechkori**, Dr., full Prof.  
Biology, Georgia  
*arngegechkori@yahoo.com*

**Omari Mukbaniani**, Prof., DSc.  
Chemistry, Georgia  
*omar.mukbaniani@tsu.ge*

**Teimuraz Lezhava**, Prof.  
Genetics, Georgia  
*teimuraz.lezhava@tsu.ge*

**Shota A. Samsoniya**, Prof.  
Chemistry, Georgia  
*shota.samsonia@tsu.ge*

**Mdzinarashvili Tamaz**, DSc., Prof.  
Biophysics, Georgia  
*tamaz.mdzinarashvili@tsu.ge*

**Aliaksandr V.Prokharau**, MD, PhD, MSc Prof.  
Oncology, Belarus  
*aprokharau@gmail.com*

**Pyrochkin V.**, MD, PhD, MSc Prof.  
Theraphy, Belarus  
*wlad\_cor@mail.ru*

**Golubev A.P.**, BD, Prof.  
Ecology, Belarus  
*algiv@rambler.ru*

**Makarevich A.**, MD, PhD, Prof.  
Theraphy, Belarus  
*makae@bsmu.by*

**Kanunnincova N.**, BD, Prof.  
Physiology, Belarus  
*n.kanunnikova@grsu.by*

**Giedrius Vanagas**, Prof.  
Internal Medicine, Lithuania  
*Giedrius.Vanagas@lsmuni.lt*

**Armuntas Baginskas**, Prof.  
Neurofiziologija, Lithuania  
*Armuntas.Baginskas@lsmuni.lt*

**Ricardas Radisauskas**, MD., Ph.D., Prof.  
Cardiology, Lithuania  
*Ricardas.Radisauskas@lsmuni.lt*

**Meyramov Gabit**, Prof.  
Cytology and Histology, Kazakhstan  
*meyramow@mail.ru*

**Aisha Mohammed Abd al-salam Shahlol**  
Ph.D. in Medical Bacteriology, Libya  
*Ais.shahlol@sebhau.edu.ly*

**Edmundas Kadusevicius**, MD, PharmD, PhD, Prof.  
Pharmacology, Lithuania  
*Edmundas.Kadusevicius@lsmuni.lt*

**Ivo Grabchev**, Prof., PhD.  
Chemistry, Bulgaria  
*i.grabchev@chem.uni-sofia.bg*  
*grabchev@mail.bg*

**Mariyana Ivanova Lyubenova**, Prof., PhD.  
Ecology, Bulgaria  
*ryann@abv.bg*  
*ryana\_1@yahoo.com*

**Tsvetanka Tsankova Marinova**, MD, PhD, DMedSci,  
Biologv. Bulgaria  
*tmarinova@yahoo.com*

**Evgueni D. Ananiev**, Prof PhD,  
Biology. Bulgaria  
*evgueni\_ananiev@yahoo.com*

**Plamen G. Mitov**, Prof., PhD.  
Biology, Bulgaria  
*mitovplamen@gmail.com*

**Atanas Dimov Arnaudov**, Ph.D.  
Physiology, Bulgaria  
*arny87@yahoo.co.uk*

**Iliana Georgieva Velcheva**, PhD,  
Ecology, Bulgaria  
*anivel@abv.bg*

**Osman Demirhan**, Prof.  
Biology, Turkey  
*osdemir@cu.edu.tr*

**Jharna Ray**, M. Sc., PhD, Prof.  
Neurogenetics, India  
*Indijharnaray@gmail.com*

**Marián Halás** doc. RNDr, Ph.D.  
Human geography, Czech  
*marian.halas@upol.cz*

**Ayfer Pazarbasi** Prof.Dr.  
Biology, Turkey  
*payfer@cu.edu.tr*

**Tusharkanti Ghosh** Prof.  
Physiology, India  
*tusharkantighosh53@yahoo.in*

**Khudaverdi Gambarov Gambarov**, Prof.  
Microbiology, Azerbaijan  
*khuda1949@mail.ru*

**Rovshan Ibrahimkhalil Khalilov**, Prof.  
Biophysics, Azerbaijan  
*hrovshan@hotmail.com*

**Svitlana Antonyuk**, Dr.phil.  
Stony Brook University, USA  
Linguistics

**Samuel M.Johnson**, Prof.Dr.phil.  
Theology, Wells, Maine, USA  
*djtjohnson@earthlink.net*

**Satanovsky Leon** MD/PhD.  
Perio-odontologie, Israel  
*satleonid@gmail.com*

Lists of references are given according to the Vancouver style

**Badiuk M.I.,**

Chief of medical support department of the Ukrainian military medical academy, doctor of medical sciences, professor,  
Kyiv, Ukraine, badiuk@ukr.net

**Shevchuk O.S.,**

chief of clinic of eye illnesses of the National military medical clinical center is a main ophthalmologist of Ministry of  
defense of Ukraine, candidate of medical sciences, associate professor, Kyiv, Ukraine, dr.shevas@gmail.com

**Biryuk I.G.,**

Head of Disaster and Military Medicine, PhD, associate professor, Higher State Educational Establishment of Ukraine  
"Bukovinian State Medical University", Chernivtsi, Ukraine, biryuk.igor@list.ru

**Kukovska I.L.,**

Associate Professor, PhD, Department of Disaster and Military Medicine, Higher State Educational Establishment of  
Ukraine "Bukovinian State Medical University", Chernivtsi, Ukraine, kukovska.irina@gmail.com

**Kovalchuk P.E.,**

PhD, Associate Professor, Department of Disaster and Military Medicine Higher State Educational Establishment of Ukraine  
"Bukovinian State Medical University", Chernivtsi, Ukraine, kovalchukpetr@ukr.net

**Sykyrytska T.B.**

PhD, Associate Professor of sovereign oftalmologii, Higher State Educational Establishment of Ukraine "Bukovinian State  
Medical University", Chernivtsi, Ukraine, sykyrytska@list.ru

## DEVELOPMENTAL FEATURES OF UP-TO-DATE COMBATANTS PSYCHOLOGICAL SUPPORT

**Abstract.** *Extreme conditions that accompany the professional tasks accomplishment often cause specific violations (from minor maladjustment to pathological manifestations of mental disorders) almost in all categories of military specialists. This article describes the urgency of the problem, an analysis of key challenges of organization of psychological rehabilitation for combatants with post traumatic stress disorders (PTSD) has been provided. The ways and methods of psychological rehabilitation of combatants with PTSD and possible ways to optimize medical care, prevention of pathological phenomena and prevention of PTSD after their professional and personal disintegration have been suggested.*

**Key words:** *Post-traumatic stress disorder, psychological rehabilitation, combatants, psycho-traumatic event.*

**Introduction.** One of the most important components of combat readiness is moral and psychological state of servicemen taking direct part in hostilities, as is warranted the attention with which experts refer to the evaluation and correction of their mental status. This issue is extremely relevant also because the "tail" of adverse mental states, which lasts for years after the return of former soldiers to civilian life. "Vietnamese", "Afghan", "Chechen" syndromes were observed in 15 - 20% of the participants (1, 2).

Continuum of altered mental states that arise during military warfare includes combat stress response (initial manifestation disadaptation disorders), combat fatigue and post-traumatic stress disorder (PTSD) and reactive states as the most severe forms of combat mental pathology. Experience shows that non-adaptive psychological reactions to combat conditions

ranged from 10 to 50% of health loss in modern local wars. However, recent conflicts in the Persian Gulf and Somalia were characterized by a low level of mental disease in the US Army and allies. Thus, the conduct of active hostilities from February to April 1991, in the 15th mobile hospital, which served mainly US Marine units, the diagnosis of "battle fatigue" was raised only 1.3% of patients (from a total of 86% of the victims had diagnosis directly not related to warfare) (4). Experts explain this, first of all, well-established work on psychoprevention and correction in terms of engagement, and, second, relatively low deadweight losses among personnel. On the other hand, psychological exhaustion was one of the main causes of vulnerability of Iraqi troops during the Gulf War. A clear proof of this are the facts of

mass delivery of entire units captured Iraqis.

Combat stress has been described more than a hundred years ago. During the American Civil War, this condition was called "nostalgia" for a long time when people were cut off from home. "Shell shock" (bomb shocks) - so was characterized the condition of the people that came under bombardment during World War II, and "war neurosis" - the state of those who did not suffer bombings, but also took part in the fighting. Later they began to use the term "combat stress" and "combat fatigue." In 1980, the American Psychiatric Association noted that the symptoms experienced by the combatants were similar to those that occurred in civilians who have suffered an accident or natural disaster. In the Diagnostic and Statistical Manual of the American Psychiatric Association (The Diagnostic and Statistical Manual of the American Psychiatric Association DSM - 111 - R) lists these symptoms as the criteria for post-traumatic stress disorder (PTSD). Experience the rehabilitation of military personnel with this type of disorder indicates that PTSD is a pathological finale, which develops as a result of chronic stressors intense action of war and preceded by a number of transitional states.

The term "combat stress reaction" (CSR) (combat stress reaction) and combat fatigue (battle fatigue) are used to characterize normal initial reaction to the fight. That is, these conditions may develop to PTSD, are not pathological by their nature but demonstrate a significant stress compensatory and adaptive human systems. CSR - a general term that covers all possible reactions to combat. This reaction can be both positive adaptive effect, inspiring warrior acts of heroism and negative, making him unable to participate in the battle. CSR - a combat stress reaction in which combat stressors and other personal stressors combined with psychological overload protection mechanisms and make people temporarily unable to perform his duties. It should be noted that CSR is not a mental diagnosis. In the literature, published after the Second World War, emphasizes that the diagnosis of "neurosis" shall not apply to persons who have symptoms

CSR. This division of psychiatric disorders can determine CSR as a normal condition that occurs in normal people under the influence of abnormal circumstances (8, 9).

Special significance is the ability of military

personnel and their immediate environment (especially commanders, doctors, psychologists) to assess the human condition adequately, to identify those symptoms that suggest the development of stress. You must know and take into account several features: sleep disorders, anxiety, depression, fear, irritability, tension and tremor. CSR first appears as individual human inability to perform their duties. Such manifestations are very early and are associated with increasing intensity of combat exposure and stress factors. Among the most characteristic features should be noted leaving the battlefield, unexplained absence and others. Those combatants who experience combat fatigue are more likely recurrence of symptoms. Psychological factors (personal characteristics of a person) could delay or hinder rehabilitation after such states. More serious manifestations of the impact of combat on soldiers conditions are dissociative and conversion disorders, self-injury, suicidal behavior. For example, during the Gulf War in the US Army, which is involved in the operation have been six suicides, 3 - when landing in Haiti and 1 - in Somalia (6, 9).

Principles of medical and psychological rehabilitation of combatants with CSR signs were first formulated by Salmon during the WWI. These features are proximity, urgency, expectancy (PIE). Further development and complement the principles of rehabilitation of combatants with signs of combat stress reaction amounted acronym BICEPS. BICEPS - acronym composed of English words Brevity (short duration), Immediacy (urgency), Centrality (centralized), Expectancy (expectations), Proximity (proximity), Simplicity (ease).

The principle of promptness means the need to assist victims of CSR symptoms within minutes or hours after the manifestation of symptoms. CSR manifestations become more resistant to therapeutic effects in cases of delay in assistance. It is much easier to remove signs of frustration and turn combatant in action in the early stages. From this principle it follows that first aid should not be provided by medical officer. The most appropriate option should be considered to assist soldiers with equal status.

The third principle, which called hope, is perhaps the most important. Confidence that the victim back to the system must be demonstrated at every stage of rehabilitation. Numerous studies

have shown that if the victim is treated as a patient and is sent to the rear, his symptoms kept longer and he rarely return to duty, or it does not happen at all.

A very important question is wording of diagnosis. If the victim of CBS has a psychiatric diagnosis, it may affect the forecast. Analysis of cases of unsuccessful treatment suggests that victims who are aware of psychiatric diagnosis, reduce the control of behavior, they have exacerbated symptoms of injury. In this case, there is a great risk of iatrogenic. The wording of the diagnosis, such as "war neurosis", "battle shock", "psychoneurosis" or "hysterical reaction" can instill the idea of chronic disease. Neutral terms such as "combat stress reaction" or "combat fatigue" are much better.

Victims should receive rehabilitation not as patients, but such as military personnel. It is important to separate the victims from somatic sick or injured. Almost always leaving this group of military uniforms instead of hospital pajamas is preferred. There should be supported military ethics and discipline. Combatants may be allowed to leave the personal weapon after it is discharged. As a rule, drugs should be avoided, making an exception only for sedatives. The main means of rehabilitation is rest, renewal of relations in the military and help the team to adapt to the combat environment. Providing a shower, food, warm dry clothing and sleeping are simple and very effective means of rehabilitation. It is important for the rehabilitation period to be short (48-72 hours) and simple. Individual and group psycho sessions are used to allow victims to express and share their anger, grief and fear, both with captains, and with the same victims. This process is aimed at relaxation and awareness (catharsis) negative emotional reactions to combat stress. Simple psychotherapeutic techniques such as awareness, suggestion, persuasion, can be effectively used for rehabilitation of people with symptoms of CSR. Understanding, the process of processing the unpleasant experience of traumatic events through discussion with others plays a significant role in restoring optimal condition. This helps eliminate feelings of helplessness. Awareness as a therapeutic method can be used to provide primary care and prevent further deterioration of the victim. Providing of rehabilitation assistance in

the event of BSR provides the framework to organize a three-tiered system. The first stage is based on the control by others, assistance is provided on site. If the first stage measures were insufficient, the victim is sent through a sorting point for the second phase. He is represented by the Center of Combat Stress (Battle stress management center), where is a well-trained personnel of psychiatric profile. The choice of deploying such a center is a rather serious problem. Usually it is some distance from the front line (about 2-4 miles), in an area, which is relatively safe in terms of reach of the enemy. At this stage, resulting in shorter screening individuals with signs of CSR are selected.

The Israeli army has a rich experience in treating of combat stress reaction. They applied this above principles in the war with Lebanon in 1982 to assist victims. This was creating of so-called recovery unit combat capability (Combat Fitness Retraining Unit), which personnel consisted of psychiatrists, social workers, clinical psychologists, trainers in sports and combat training. An important feature, which point out the organizers of these units is that the physician or psychologist must be a person with compulsory military experience that will establish more trust in the process of treatment (7, 10).

The third stage is usually located in central areas at air bases, it carried a deep but short and immediate examination and psychiatric care with the prospect of a quick return to the system. It should be noted that persons with serious psychiatric disorders are usually evacuated from the theater of operations once the fourth tier of assistance. It is given to patients with posttraumatic stress disorder and other serious diseases. An example of a specialized medical institution that deals with military psychiatric disorders are Tripler Army Medical Center (Hawaii), where most studied problem of post-traumatic stress disorder, patients being treated using drugs psychotherapeutic procedures (3, 9). The Center for 5 years, since the Gulf War, have been successful rehabilitation of 632 patients. It must be emphasized that in specialized centers only get those with severe symptoms. Additional problems arise due to the significant increase in the number of women performing military service (if in 1973 the share of female US Army was 2%, now – 9%). They course of post-traumatic stress

disorder is different number of specific features that are not yet fully understood. All this creates certain social problems.

Importantly, the treatment of post-traumatic stress disorder preference psychotherapeutic techniques, and on the intended pharmacological medicines which reduce impulsivity, aggressiveness. In the second place destined drugs that normalize sleep. It is noted that the best results posttraumatic stress disorder therapy gives in when the symptoms can not remove hyperactivation.

Calculations show that using the principles BICEPS in assisting victims with symptoms of combat stress response allows the expected return in order to 85% of personnel. Of these, approximately 7% expect repeated reactions. In the Israeli army during the war in Lebanon used three of the six principle. Comparing the units in which these principles are adhered to, showed a return to the system was 60%; and only 22% where these principles are not respected. In addition, the incidence of post-traumatic stress disorder was lower by 30%.

In conclusion, we can not say about another important condition to ensure the high level of mental health of military personnel, which has no relation to medicine and psychology, but which depends very much - propaganda providing military campaigns. Reference democratic regime - USA - forget freedoms, including freedom of speech, when it comes to warfare. For example, the access of foreign correspondents in the US forces deployed in Saudi Arabia during the war, "Desert Storm" was limited to a visit to a small number of units, the list of which was approved by the US command. To communicate with correspondents allowed only specially selected and trained soldiers. Command strictly dose information on the operation. The situation repeated itself during the fighting in Afghanistan. This is intended to provide "attractive" image war in the eyes of the population - the initiator of hostilities, and therefore a positive attitude to the soldiers who took part in the operations. The soldier who feels like a hero, after returning home soon overcome the adverse psychological effects

of participation in war (9).

#### Referenses:

1. Tarasa AE, editor. Kry's'ko VG. *Secrets of psychological warfare (goals, objectives, methods, experience)*. Mn: Harvest; 1999. 448 p.

2. Kokun OM, Pishko IO, Lozins'ka NS. *Osoblivosti negativnih psihichnih staniv vijs'kovosluzhbovciv. Visnik Nacional'nogo universitetu oboroni Ukraïni*. 2014;5(42):185-90.

3. Badiuk MI, Shevchuk OS, Gutchenko KS, Biryuk IG, Moldovan TE. *The combat stress reaction as a scientific problem of the world, and its social and medical consequences. Clinical and Experimental Pathology*. 2016;15№4(58):10-14.

4. Popeljushko RP. *Diagnostichne doslidzhennja kombatantiv z viddalenimi naslidkami stresogennih vpliviv. In: Aktual'ni pitannja teorii ta praktiki psihologo-pedagogichnoi pidgotovki majbutnih fahivciv. Tezi dop. V Vseukr. nauk.-prakt. konf. (Hmel'nic'kij, 30-31 march 2017)*. – Hmel'nic'kij: HNU; 2017. S. 155-7.

5. Bove AA, Oxler SJ. *Medical department operations in a fleet hospital during operation Desert Storm. Military Medicine*. 1995;(8):391-5.

6. Budd F. *Helping the helpers after the bombing in Dhahran: critical-incident stress services for an Air Rescue Squadron. Military Medicine*. 1997;(8):515-20.

7. Sajko OV. *Osoblivosti perebigu gostrogo periodu strusu golovnogo mozku, otrimanogo vijs'kovosluzhbovcjami v zoni provedennja antiteroristichnoi operacii. Medicina neotlozhnyh sostojanij*. – 2016;77(6):65-71.

8. Kokun OM, Pishko IO, Lozins'ka NS. *Osoblivosti vijavu negativnih psihichnih staniv u vijs'kovosluzhbovciv, jaki otrimali bojovi fizichni ta psihichni travmi. Problemi ekstremal'noi ta krizovoï psihologii*. 2016;19(1):146-152.

9. de Montleau F, Boussaud M, Dascalescu D, Granier C, Allagil C, Daudin M. *Rehabilitation and reintegration of soldiers injured on deployment. Soins Psychiatr*. 2015 Mar-Apr;(297):15-8.

10. Takla NK, Koffman R, Bailay DA. *Combat stress, Combat Fatigue and psychiatric disability in aircrew. Aviation, Space and environment Medicine*. 1994;65:858-65.