

Dr Marzena Netczuk-Gwoździewicz

Akademia Wojsk Lądowych we Wrocławiu
Wydział Nauk o Bezpieczeństwie

Consequences of chronic stress-related functioning of soldiers participating in missions

Abstrakt:

All soldiers taking part in military action abroad are exposed to a number of negative consequences connected with experiencing combat stress. Surviving the war and returning home where the family awaits is a great success. Unfortunately, the sad truth is that soldiers who continuously dealt with death and damage, after coming back home cannot find themselves in a different reality. The consequences of participating in a mission will be present in many areas of life. Functioning of the soldiers who participated in the mission in chronic stress causes a number of unavoidable negative consequences. All the accommodative processes can be examined both from a biological and social point of view. What is more, their schematic course can be described on a timeline. The most important is a quick diagnosis and the implementation of an adequate medical treatment. Social support is also invaluable. Otherwise, chronic stress may contribute to many diseases. The aim of the article is to analyze consequences of chronic stress-related functioning of soldiers participating in missions.

Key words: combat stress, PTSD, acute stress disorder.

Konsekwencje funkcjonowania w chronicznym stresie żołnierzy wyjeżdżających na misje

Streszczenie:

Wszyscy żołnierze biorący udział w działaniach wojennych poza granicami kraju narażeni są na szereg negatywnych konsekwencji związanych z doświadaniem stresu bojowego. Ogromnym sukcesem jest przetrwanie wojny i powrót do kraju, gdzie czeka rodzina. Niestety smutną prawdą jest, że żołnierze, którzy nieustannie obcowali ze śmiercią i zniszczeniem po powrocie do domu nie potrafią odnaleźć

się w odmiennej codzienności. Problemowe stają się nawet podstawowe obowiązki codziennego życia. Konsekwencje uczestnictwa w misji zaznaczać się będą na wielu płaszczyznach życia. Funkcjonowanie żołnierzy uczestników misji w chronicznym stresie, powoduje szereg nieuniknionych, zazwyczaj negatywnych konsekwencji. Wszelkie procesy przystosowawcze do stresu rozpatrywać można zarówno z psychologicznego, biologicznego jak i społecznego punktu widzenia. Co więcej ich szablonowy przebieg można opisać w czasie. Ważnym elementem jest przede wszystkim szybka diagnoza i zastosowanie odpowiedniego leczenia. Nieocenione okazać się może również wsparcie społeczne. W przeciwnym razie chroniczny stres przyczynić się może do powstania wielu chorób. Celem artykułu jest analiza funkcjonowania w chronicznym stresie żołnierzy wyjeżdżających na misje.

Słowa kluczowe: stres bojowy, PTSD, zespół ostrego stresu.

1. Introduction

Soldiers participating in various kinds of missions abroad are accompanied by constant stress almost every day. This indispensable element of military service is primarily caused by numerous military threats. Among the most-often classified sources of stress with which all soldiers struggle, psychologists distinguish: constant danger of being fired at by unknown people, possibility of the occurrence of any terrorist acts with the use of booby traps, car bombs, bombs, suicide terrorists, etc., remnants of the last conflict – mines, unexploded ordnance, unpredictability of attacks – a sense of constant danger, fear of suffering, death, disability, difficulties in recognizing military threats resulting from internal situation development and conflicts caused by mental differences, probability of misunderstandings with the civilian population transforming into open armed conflicts, insufficient knowledge or disregard of safety regulations when dealing with explosives, technical equipment and ignoring natural conditions such as character of the terrain, road surface, temperature, long-term physical effort in some operations: lack of rest and sleep, limited personal hygiene, irregular eating, long-term mental tension, operations involving use of weapons or other means of violence, seeing killed and wounded people, destruction, other operations: mine clearance, destruction of explosives, weapons, ammunition, rescue actions: evacuation and medical help to injured persons performing such tasks, actions directed against big gatherings (manifestations) of the civilian population, sometimes involving women and children treated as 'live shields', operating in an unknown, generally hostile, area: the need to respect the rules of armed conflict, often against those who do not follow any rules or laws [2].

While analyzing the aforementioned factors that are sources of stress during missions, it could be concluded that active participation in hostilities exposes their participants to loss of life and health practically at any possible moment. The multiplicity of threats mentioned above proves the multidimensionality and rank of contemporary conflicts. Being acquainted with and awareness of lurking dangers can with no doubt contribute to reducing the omnipresent stress resulting from combat operations.

2. Consequences of stress and insufficient coping skills

Prolonged functioning in chronic stress leads to a high amount of consequences manifested on many levels. Most researchers on the subject emphasize that living in chronic stress causes body reactions both in the mental and physical sphere. What is more, it covers the emotional, cognitive, biological and action (behavioral) spheres [3]. Long-term experiencing stressful reactions cause first and foremost changes in one's self-esteem. Moreover, strong stress manifests itself in the occurrence of negative emotions such as anger, rage, strong irritability, melancholy as well as short-term depression [26].

Adam Frączek and Mirosław Koft claim that experiencing frequent and severe stress leads to anomalous behavior towards others. These problematic reactions include mainly hostility toward people, aggressive reactions, avoiding and isolation from the society, desire for submission to others or desire to dominate as well as increased passiveness and apathy [25]. Having conducted numerous studies, Stanisław Sięk also made a general summary of typical reactions resulting from long-lasting and pertinacious difficulties of everyday life. He includes, above all, constant irritation, excitation, compulsive thinking about work or other life issues that require solving, impatience and increased irritability. In addition, he distinguishes a big group of somatic reactions, which includes shallow and disturbed sleep or difficulty falling asleep, frequent urination, sudden uncontrolled outbursts of anger or crying, constant rush, intensification of certain reflexes (tics and uncontrolled mimic facial reactions), irregular heartbeat (palpitations), increased tension of skeletal muscles, visceral muscles and chest muscles, pain and stinging in the chest, digestive disorders, lack of appetite or increased appetite, constant sense of undefined threat, restlessness, searching for activities, inability to rest and relax, racing thoughts, dry mouth, tightness in the throat as well as hot and cold flashes among the consequences of functioning in stress [21].

All stress reactions lead, first of all, to loss of energy, deterioration of mental performance, reduced ability to work and achieve goals. Moreover, Sięk believes that these strong stress reactions can be manifested by disgust for work, sense of loss of living forces, deterioration of attention, concentration and memory as well as visual motor integration [7].

As we have seen so far, the consequences of stress are mainly related to psychological and physiological changes in the functioning of the body. They depend, of course, on a number of various factors. Effective coping skills play a crucial role here. Two forms of consequences associated with long-term life in stress can be distinguished, namely adaptive and non-adaptive ways of coping with stress. As for the first form, it involves positive stress behavior:

- a soldier participating in a mission becomes motivated to act due to a sense of omnipresent stress; what is more, he or she unites with comrades-in-arms,
- a soldier is more loyal to other participants of struggle,
- a soldier has a growing sense of mission, i.e. he / she sees goals and effects that are achieved due to his or her work,
- soldier's tolerance for all hardships and inconveniences increases, pain and all wounds become more bearable,
- due to adaptation skills a soldier is capable of performing acts of heroism, his or her courage and willingness to self-sacrifice increase [8].

It is important, however, to look more closely at what happens at the moment when one's skills in dealing with stress are insufficient. The inability to cope with stress by a participant of any military operation is primarily related to any change in functioning and actions taken by the individual. The first consequence of functioning in permanent stress of the battlefield is described in Chapter two 'combat fatigue'. This exhaustion is a natural process related to long-term participation in fight. What is more, it is a result of struggling with difficult tasks under extreme conditions that often threaten life and health [18]. Consequences of 'combat fatigue' may include, among others, increased alertness, self-doubt, loss of self-confidence, panic attacks, hallucinations, a sense of abandonment by commanders and colleagues as well as depression. In conclusion, the 'combat fatigue', as a response to long-term stress, consists of emotional exhaustion and depersonalization as well as adjustment disorders.

In addition to the term 'combat fatigue', more adequate terminology is applied nowadays to identify the overall adverse psychological effects of long-term participation in combat activity. The effects of chronic stress manifested on three levels (mental, somatic, behavioral) often leading to the total loss of ability to act result in the exclusion of a soldier from operations. The aforementioned phenomenon is currently expressed by the term 'combat stress reactions' (CSR) [5].

All forms of service can significantly burden the psyche of every soldier. Inability to cope with permanent stress can lead to the emergence of combat – operational stress reactions. The state in question can occur in four different forms:

- in the physical sphere, where a serving soldier begins to be burdened by a feeling of tiredness and exhaustion; numbness of limbs, nausea and insomnia occur in addition [13]
- in the cognitive sphere a defect is manifested by problems with concentration or occurrence of the so-called flashbacks related to a traumatic event from the past, based on frequent reenactment of certain scenes from the moment of trauma
- in the emotional sphere, which is mainly characterized by a sense of helplessness in the face of reality surrounding a soldier. Moreover, a person who does not deal with his or her emotions often has a problem controlling them. Exasperation and irritation occurs, which results in uncontrolled outbursts of anger
- in the behavioral sphere, characteristic determinants of this category include, first of all, irresponsible actions associated with risk that are a result of excessive impulsivity [24].

While considering the dysfunctional behavior of soldiers resulting from participation in missions, it should not be forgotten that apart from battle fatigue, unreasonable and even criminal behaviors can occur, which are manifested already during a mission. In extreme cases a soldier who has suffered combat stress may commit acts such as killing war prisoners, use of cruel torture methods on them, he or she can also be extremely violent, for example, against animals [8]. In addition, there are known cases of intimidation of superiors or desertion. Unreasonable behaviors may include use of all kinds of stimulants, drugs or alcohol. A soldier who refuses to submit to prevailing norms is guilty of enormous violation of discipline.

Taking into account the notion of cumulative stress (a belief that people get 'worn out' and 'burned out' on missions), Stanisław Ilnicki adds that people 'exploited' on missions are exposed to many negative health and psychosocial consequences. They are more likely to divorce, become addicted to alcohol, have a conflict with the law, die in accidents or commit suicide. Moreover, they suffer from heart diseases and thus live shorter [15]. Some Polish soldiers strive to prolong their mission contracts and commanders sometimes agree if they are specialists in some unique field, but generally it should not be allowed due to health and psychosocial reasons. The duration of a mission should not exceed 6 months and the interval period between missions should be one year long. Such are the UN recommendations. The prolonged absence of a soldier who too often leaves for missions can also result in family problems. A husband returning from a mission expects special attention and he is not always able to find himself in a situation at home.

Adaptive and non-adaptive behaviors in combat stress can lead to the occurrence of Posttraumatic Stress Disorder (PTSD). PTSD has been included in the classification of mental

disorders (DSM¹) and ICD 10² (International Classification of Diseases). According to the proposed typology they are: 'delayed or protracted responses to a stressful event or situation of an exceptionally threatening or catastrophic nature' [9, p. 55], events which would have an extremely intense impact on the vast majority of people. In this context, the predisposing factors should be acknowledged, which are: personality (asthenic or anthracite) and prior neurotic decompensation. These factors 'may lower the threshold for susceptibility to disease development or contribute to exacerbation of its course', however, they do not themselves constitute the necessity of its occurrence. Re-experiencing a traumatic event can emerge through recurrence of obtrusive memories or nightmares, which 'appear in the light of a sense of numbness and emotional drowsiness, isolation from people, lack of response to surroundings and anhedonia' [10, p. 56] as well as by avoiding activities and situations bringing the traumatic situation to mind. According to the International Classification of Diseases, PTSD is characterized by following traits: excessive vegetative stimulation with extra vigilance and increased responsiveness to stimuli, insomnia, anxiety, sadness, suicidal thoughts and beginning of disorders after a period of latency. In accordance with this, a disease has a variable course and disorders can be lasting and lead to permanent personality change.

Four phases can be distinguished in the formation of PTSD. The first phase of adaptation is characterized by variability of the ways, which are manifested in the symptoms of the posttraumatic stress disorder; it is accompanied, however, by a minimum number of symptoms, which makes this phase very difficult to diagnose. The next stage is characterized by an increased number of symptoms. It is the second phase described as survival by the author [16]. Decompensation is the third phase. It consists of three stages: searching for experiences, withdrawing and dissociation. This phase can be recognized by symptoms such as alcohol abuse, recklessness as well as loss of control. In the fourth phase, an individual begins to fall into a state of deep depression and helplessness. This phase is characterized by a decrease in efficiency in daily functioning. A person has several options at this stage. He or she can either reevaluate certain aspects of life and start a therapy which will cause a regress of progressive symptoms or, in the worst case, he or she totally loses control over life, which may even result in a suicide attempt.

Bessel van der Kolk and Alexander McFarlane believe that establishing posttraumatic stress disorder (PTSD) as a diagnostic unit creates an organized scheme for understanding in what way a soldier's biological functioning, viewing the world and personality are inextricably connected and

¹ DSM IV, where a unit described as DESNOS (*disorder of extreme stresses not otherwise specified*) has been placed. The reaction is based on feeling intense fear, helplessness or horror. It is characterized by changes in the regulation of active stimulation, changes in attention and awareness, somatization, chronic character changes and changes in value systems¹. Moreover, these symptoms usually last up to one month.

² Posttraumatic Stress Disorder can occur in three forms: acute (under three months), chronic (over three months) and with a deferred start (over 6 months from the exposure).

shaped by experience. The PTSD diagnosis recalled the view that many 'neurotic' symptoms are not a result of some mysterious, almost impossible to explain, based on the genetic grounds, irrationality but rather inability of people to deal with real experiences which have restrained their power to cope [4, p. 64].

Active participants of combat operations who suffer from PTSD are characterized by frequent use of denial mechanism, as admitting to inability to cope with struggles of war is perceived by them as dishonorable. The sense of shame causes soldiers to refuse help, hiding behind well-being, great preparation for the mission and professionalism. The impact of military trauma experienced by soldiers and its effects can also be presented in the following timeline:

- 0 – 7 days, immediate effects: shock, numbness, mental suffering, disbelief,
- up to 1 month: symptoms of anxiety and depression, phobias, obsessive symptoms, avoidance, the state of increased excitation, touchiness, sleep and appetite disorders, difficulty concentrating, irritation, susceptibility to accidents, increased susceptibility to addiction,
- 1 – 6 months: acute PTSD, depression, mourning reaction, fears, addiction to psychoactive substances, behavior disorders,
- 6 months and more: long-term trauma, behavior disorders,
- over 6 months: it follows as a result of re-experiencing trauma [17].

3. Posttraumatic Stress Disorder and Acute Stress Disorder

When in 1980 in the USA PTSD was introduced as a disease entity into the Diagnostic and Statistical Manual of Mental Disorders (DSM III), the development of knowledge about this phenomenon has begun. The consequence of the research on PTSD was the classification of another illness related to experiencing a traumatic event, with strongly antagonistic symptoms. We are talking about Acute Stress Disorder (ASD) that is: 'the period between the traumatic event which an individual was exposed to and the diagnosis of Posttraumatic Stress Disorder' [1]. It should be noted, however, that the criterion for the time of ASD occurrence is 2 days to 1 month after a traumatic event. ASD criteria are modeled on PTSD criteria. Although Acute Stress Syndrome has symptoms antagonistic to Posttraumatic Stress Syndrome, it needs to be mentioned that among these systems DSM IV lists dissociative symptoms such as subjective sense of emotional numbness, isolation, lack of any emotional reactions, decreasing interest and awareness of what is happening in the surroundings, derealization and depersonalization [22].

Familiarity with the subject matter allows the conclusion that functioning in chronic stress which soldiers are exposed to while participating in overseas missions may contribute to the emergence of psychological trauma [23]. This is evidenced by the fact that when an individual is

exposed to an event of a great and even destructive power, an immediate adaptive reaction is impossible. What is more, traumatic stress is the starting point for a stroke injury of the psyche and brain. Scientists believe that it is as significant as the impact of a stroke body injury, while injuries resulting from trauma have a much more subjective tone. Diagnosing them is not as easy as in the case of, for example, broken bones. Combining stroke body injury with psyche and brain stroke injury caused by, for instance, combat stress is very controversial. However, the fact is that the same set of symptoms is applicable to different types of traumatic injuries. As for characteristic traits that are a result of traumatic stress allowing somehow recognizing the acute stress syndrome, the DSM IV diagnostics suggests the following criteria [20]:

1. a person experienced a traumatic event that was a real threat to health or life and what is more, when experiencing this event a sense of great fear, horror and helplessness were present,
2. a person demonstrates at least three of the dissociative symptoms listed below during or following a dramatic event: numbness or lack of emotional sensitivity, in other words a sense of 'turning off', reduced awareness of what is happening around, derealization, depersonalization, dissociative amnesia consisting of problems with recalling details of the traumatic event,
3. burdensome reenacting of a traumatic event, in at least one of the following ways:
 - recurring images, thoughts, dreams, illusions, flashback episodes, feeling of re-experiencing an event, suffering in circumstances reminiscent of the unpleasant event,
 - increased and evident avoidance of stimuli (people, thoughts, feelings, places, activities) bringing back memories of the experienced traumatic situation,
 - burdensome and evident symptoms of anxiety or increased agitation such as sleep problems, excessive irritability and difficulty concentrating,
 - significant deterioration of effective functioning in the society and hence difficulty finding help [11].

As seen from the above, criteria for diagnosing ASD do not differ significantly from those used diagnosing PTSD. In conclusion, the only derogations here include the duration of trauma (from 2 days to a month for ASD). What is more, the aforementioned dissociative symptoms can be associated with the acute stress disorder.

With reference to soldiers participating in missions in Afghanistan and Iraq it can be stated that the reason for both PTSD and ASD are first and foremost traumatic events experienced during fighting. Undoubtedly, witnessing death of close comrades-in-arms, survival of an unexpected enemy

attack where many friends have fallen or severe injury in the course of continuous fighting remain etched in the minds of soldiers.

Concentrating further on the subject of diagnosing the acute stress disorder in combat participants, mention should be made of rather controversial time criterion because, according to DSM IV – TR, soldiers who suffered trauma during combat operations are impossible to diagnose. This is connected to the fact that despite the symptoms that are the same in both in the first 48 hours and on the third day, according to ICD – 10, symptoms of traumatic stress manifested in the first minutes after a shocking event are blurred at a very fast pace (several hours to several days). These controversial speculations stem mainly from an attempt to avoid diagnosing the pathological state of fighters (who have experienced an injury), before its symptoms last more than two days. Despite that, however, the Department of Veterans' Affairs and the United States Department of Defense stated that symptoms of traumatic stress deserve immediate intervention as soon as they occur. Moreover, ignoring these symptoms is compared to disregarding, for example, a broken bone just because it could be a simple twist [4, p. 58]. In order to avoid such moral complexities, the term 'injury caused by traumatic stress' is used nowadays, which serves to describe soldiers who have significant diagnostic symptoms of posttraumatic stress either in the first minutes after an incident or in the few following days.

The ASD symptoms described earlier are unfortunately some of the only few that have been classified so far as effects of combat stress in participants of all kinds of missions. In addition, processes taking place in the psyche and brain of soldiers activated during traumatic events are not fully explained. Researchers continue to conduct numerous studies that will allow for detailed specification and systematization of the phenomenon that is the acute stress disorder. However, previous discoveries in the field of ASD enabled the identification of several fixed injury processes, which allow for individual understanding of injuries resulting from combat stress. This relates, in particular, to excessive physiological stimulation, undermining fundamental beliefs, sense of shame and guilt as well as dissociation [19, p. 89].

To more accurately depict all the mentioned above differences between PTSD and ASD, the table below presenting the general distinction in terms of criteria can be used.

Table 1. Similarities and differences between ASD and PTSD

CRITERION	ASD	PTSD
STRESSOR	Coexisting life-threatening or health-threatening event; fear, helplessness, horror	Coexisting life-threatening or health-threatening event; fear, helplessness, horror
DISSOCIATION	At least three out of: numbness, reduced awareness, depersonalization, derealization, dissociative amnesia	
RE-EXPERIENCE	At least one out of: returning images / thoughts / distress, distress as a consequence of an event, not required, intrusive character, not required	At least one out of: returning images / thoughts / distress, distress as a consequence of an event, required, intrusive character, required
STIMULATION	Clear anxiety, including: insomnia, susceptibility to irritation, excessive alertness, difficulty concentrating	At least two out of: Insomnia, susceptibility to irritation, concentration deficits, excessive alertness increased startle response
AVOIDANCE	Clear avoidance of: thoughts, feelings or places related to experienced trauma	At least three out of: avoiding thoughts / conversations, avoiding people/places, amnesia, reduced interest in the surroundings, isolation, limited affect, sense of limited future
DURATION	At least 2 days to 1 month after injury. Dissociative symptoms can only be present during injury.	At least 1 month after injury
HANDICAP	Impairment of the proper functioning	Impairment of the proper functioning

Source: author

Conclusion

In conclusion, it should be stated that functioning in chronic stress leads to a number of unavoidable, usually negative, consequences in soldiers participating in missions [21, p. 67]. All processes of adapting to stress can be viewed from the psychological, biological as well as social perspective. What is more, their template course can be described in terms of time. An important element is a rapid diagnosis and application of appropriate treatment. Social support can also be of great value. Otherwise, chronic stress can contribute to many diseases. They most often include stomach and duodenum ulcers, hypertension, heart diseases, diabetes, migraines, arthritis, asthma,

sleep disorders, anorexia nervosa, bulimia, diseases, male sexual dysfunction or female menstrual disorders.

All soldiers participating in military operations abroad are exposed to a number of negative consequences associated with experiencing combat stress. Surviving the war and return to the country where the family is waiting are huge success. Unfortunately, the sad truth is that soldiers who constantly dealt with death and destruction cannot find themselves in the different reality after returning home. Even basic duties of everyday life become problematic. Consequences of participation in a mission will be marked on many levels of military life. Therefore, one should agree with the statement that 'a person who has once been to war will never be the same again' [14, p. 56] because after coming back home a soldier will not deal with such high levels of adrenaline and experience as during a war. Many of the returnees have trouble re-adjusting to life the way it was before leaving. A significant number of people, overwhelmed by problems, need understanding and social support. If these are absent, they feel lonely and begin to reach for alcohol. They drink in order to deal with gruesome memories that hardly anyone understands. Depressive disorders are also common and in extreme cases soldiers make suicide attempts. Undoubtedly, all soldiers after returning home should be provided with multidimensional help to cope with consequences of combat stress, and as a result, they will be able to quickly return to normal psychosocial functioning.

Bibliography:

- [1] R. Bryant, A. Harvey, Zespół Ostrego Stresu. Teoria, pomiar, terapia, PWN, Warszawa 2003.
- [2] R. C. Carson, J. Butcher, S. Mineka, Psychologia zaburzeń. Człowiek we współczesnym świecie. GWP, Gdańsk 2003.
- [3] M. Cenin, S. Chełpa, Psychologia wojskowa. Wydawnictwo MON, Warszawa 1998.
- [4] B. Dudek, Zaburzenie po stresie traumatycznym, GWP, Gdańsk 2003.
- [5] M. Dyrda, Psychologia w wojsku, Agencja Wydawnicza „Egros”, Warszawa 1997.
- [6] A. D. English, Leadership and operational stress in the Canadian Forces, "Canadian Military Journal" 2000, Vol. 1, No. 3.
- [7] C. Figley, W. Nash, Stres bojowy. Teorie, badania, profilaktyka i terapia, PWN, Warszawa 2010.
- [8] J. D. Ford, *Posttraumatic Stress Disorder. Science and Practice*, Elsevier, New York 2009.
- [9] D. Grossman, O zabijaniu, Wyd. Mayfly, Warszawa 2010.
- [10] W. Gruszczyński, A. Florkowski, B. Gruszczyński, A. Wysokiński, Klasyfikacja zaburzeń psychicznych u żołnierzy w czasie misji pokojowych i działaniach wojennych, w: „Polski Merkurusz Lekarski”, 2008, Tom 25, nr 1.
- [11] W. Gruszczyński, Zdrowie psychiczne żołnierzy., Wojskowa Akademia Medyczna, Łódź 2000.

- [12] R. J. Hartman R.J., PTSD, 2008. Are we ready to serve our troops? iUniverse, New York 2008.
- [13] I. Heszen, Psychologia stresu, PWN, Warszawa 2013.
- [14] I. Heszen, H. Sęk, Psychologia zdrowia, PWN, Warszawa 2008.
- [15] S. Ilnicki, S. Szymańska, M. Zbyszewski, R. Tworus, P. Ilnicki, Grupowe spotkanie terapeutyczne jako forma wsparcia psychologicznego weteranów Polskich Kontyngentów Wojskowych, „Lekarz Wojskowy”, 2008, T. 86, nr 4.
- [16] M. Jędrzejko, A. Gołębiowski, M. Netczuk-Gwoździewicz, Sense of Coherence versus Styles of Stress Management among Soldiers Leaving for Peacekeeping Missions, w : M. Jędrzejko (red). Social education: current problems and perspectives, Mykolas Romeris University, Vilnius 2014.
- [17] M. Lis-Turlejska, Stres traumatyczny. Występowanie następstwa, terapia. Wyd. Akademickie „Żak”, Warszawa 2002.
- [18] D. Marshall, R. Spitzer, M. Liebowitz, American Journal of Psychiatry, New York 1999.
- [19] M. Netczuk-Gwoździewicz, Pomoc psychologiczna dla żołnierzy wyjeżdżających na misje wojskowe, w M. Walancik, J. Hroncova (red). Pedagogika społeczna wobec procesów żywiołowych i zachowań ryzykownych, Wydawnictwa Edukacyjne Akapit, Toruń 2013.
- [20] J. Patoka, Psychologiczne przygotowanie żołnierzy – uczestników misji poza granicami kraju, Warszawa: DWiPO MON, Warszawa 2006.
- [21] R. Sapolsky, Dlaczego zebry nie mają wrzodów. Psychofizjologia stresu, PWN, Warszawa 2011.
- [22] S. Siek, Walka ze stresem, Wydawnictwo WATK, Warszawa 1998.
- [23] J. Strelau, Osobowość, a ekstremalny stres. GWP, Gdańsk 2004.
- [24] J. Strelau, B. Zawadzki, M. Kaczmarek, Konsekwencje psychiczne traumy. Uwarunkowania i terapia, Wydawnictwo Naukowe „Scholar, Warszawa 2009.
- [25] J. Suchecki, Zespół Ostrego stresu. Teoria, pomiar, terapia, PWN, Warszawa 2003.
- [26] M. Uszyński, Stres i antystres – patomechanizm i skutki zdrowotne, Wydawnictwo MedPharm, Wrocław 2009.