Scientific Journal of the Military University of Land Forces
ISSN: 2544-7122 (print), 2545-0719 (online)
2019, Volume 51, Number 4(194), Pages 633-645
DOI: 10.5604/01.3001.0013.6456

Original article

Post-traumatic stress disorder (PTSD) after terrorist attacks on the example of events on the Utoya island

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INFORMATIONS

Article history:

Submited: 27 November 2018

Accepted: 02 January 2019

Published: 16 December 2019

ABSTRACT

The article addresses the issue of post-traumatic stress disorder in psychological and historical terms, with particular emphasis on the analysis of reactions to the stressful situation, that is a terrorist attack.

The first part of the text is devoted to the theory of post-traumatic stress. The authors explain the physiology, mechanisms and genesis of post-traumatic stress, its short historical outline and contemporary classification of criteria determining the PTSD diagnosis, both according to the DSM-IV-TR manual and changes introduced by DSM 5.

After acquainting the reader with the basic terminology related to post-traumatic stress disorder, the authors analyze the case of the stressful situation – the attack on the Norwegian island of Utoya. The article describes the events of July 22, 2011, and focuses on the analysis of posttraumatic reactions that followed the attack among its direct participants, as well as among their relatives.

Not only does this analysis cover strictly statistical issues, but also psychological or medical phenomena of post-traumatic stress among the victims of Anders Brevik. Based on actions taken by the Norwegian services, the authors attempt to draw and systematize conclusions on the general principles of dealing with victims of potential terrorist attacks.

KEYWORDS

PTSD, terrorism, post-traumatic stress disorder

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Introduction

Post-traumatic stress disorder (PTSD) is a mental anxiety disorder that can develop in a person who has been exposed to a traumatic event [4, p. 109]. It consists of specific symptoms that emerge as the effect of the appearance of a traumatic situation. It pro-

vides reliable and at the same time negative emotions [2, p. 80]. The picture of the disorder depends on pre-traumatic events influenced by the stress factor and post-event conditions – obtaining support or specialist help [1, p. 109].

Post-traumatic stress disorder is not a new ailment; it was already mentioned in antiquity (the oldest mention of the impact of traumatic events on the human psyche appeared over 2000 BCE). Throughout centuries it accompanied humanity under various names and in changing forms [1, p. 109]. Traumatic experiences and their effects, however, were decided to be examined only in the 1970s. Initially, veterans of the Vietnam War and people who survived the Holocaust were subjected to the study [2, p. 80].

In one of his works, Homer quite realistically described Odysseus's memories of war. The Greek epic's description to the details of his character's behavior was so accurate that many centuries later, one of the books about soldiers returning from Vietnam will be entitled "Odysseus in America: Combat trauma and attempts to return home" [2, p. 80].

After Homer, over the centuries, various authors and writers in their works have addressed the subject of traumatic They were mentioned by W. Shakespeare in the biography of Henry IV who, after returning from the war, avoided everything that could remind him of it and had nightmares. Similar descriptions appeared in the 17th century in the works by R. Burton and S. Pepys. The first of them dealt with the issue of the consequences of traumatic events, while the other one witnessed the plague epidemics and the Great Fire of London. In the 19th century, in his letters to a friend, Charles Dickens described the memories that accompanied him after the railway accident in which he had participated [3].

In the public awareness, post-traumatic stress disorder is frequently associated with military actions and the main emphasis is placed on the occurrence of this phenomenon in soldiers returning from the military operations zone. However, personality disorders after traumatic stress can affect anyone who has experienced an extremely stressful situation that weighs on the individual's psyche and exceeds their coping abilities. Such events include, among others, the already mentioned military operations, but also catastrophes and traffic accidents, natural disasters, being victims of assault or rape, as well as receiving a diagnosis of a serious illness.

A terrorist attack is the extremely stressful situation in which one directly experiences the deaths of other people and is exposed to the loss of his/her life. Taking on various forms, unexpected and occurring without clearly defined, visible perpetrators and causes, it violates the internal structures of individuals and exposes them not only to physical but also psychological injuries. The vehemence of the event and its intensity affect the whole organism and mobilize it to act, often in a way exceeding the available forces and resources. It should be emphasized here that post-traumatic stress disorder is a normal reaction of the organism to an abnormal event and no one who has experienced PTSD should feel guilty or feel shame about it. Excessive stress and its effects are not limited to the individual's psyche, and its appearance has its roots in the physiological reactions of the body.

1. Physiology of stress

The physiology of stress is a complex and multifaceted phenomenon. To at least partly approximate this issue, it is worth describing the sympathetic and parasympathetic systems that are parts of the autonomic nervous system. The sympathetic system is responsible for mobilizing and activating the body, and then administering its behavior. While the parasympathetic system is responsible for the digestive and regenerative processes. The actions of both systems are leveled out and ensure the balanced functioning of the individual in everyday situations [1, p. 109].

The emergence of a threat affects the sympathetic nervous system that immediately uses all accumulated resources. That prevents control over physiological reflexes and causes, among others, uncontrolled urination. Sphincter functions can also be switched off, resulting in diarrhea which can be caused by stress. Elimination of threat and subjective sense of security give a chance for a full regeneration of the resources used. The renewal process may be manifested by fatigue, excessive sleepiness, and weakness.

2. Definition and criteria of the posttraumatic stress disorder

When the first symptoms of the body's immediate reaction to the stressful situation are gone, then a different disorder may appear which is referred to as stress or post-traumatic stress disorder (PTSD). This term was defined quite recently, as the World Health Organization identified PTSD as a disease entity only in 1992. It manifests itself above all in several disturbances in the functioning of the individual in various areas of life, both social and personal.

To correctly diagnose post-traumatic stress, it is necessary to distinguish a series of symptoms that occur in the relation of the individual with the stress factor. Among the most frequent ones mentioned in the literature, the so-called "flashes", manifesting in the form of sudden, very realistic memories of a traumatic event, are the unique ones. These memories called flashbacks not only cause dissociation. They also deprive the person of the ability to make a sober assessment of the situation and behave rationally. An individual who has experienced a sudden memory is not able to react to external stimuli and the people around him. People affected by PTSD also complain about cumbersome nightmares. It is dangerous since a person that has suffered a stressful situation and wants to forget about this unpleasant experience or arrange it logically cannot do it because of these strange visions of daydreaming and nightmares.

Such a situation may result in repression. At all costs, the individual will avoid any stimuli which are in a way connected or associated with a traumatic experience. However, if such avoidance can be regarded as a correct reaction to a certain extent, with deepening stress and incorrect assessment of the situation, it can quickly lead to alienation of a given person.

Other obvious PTSD symptoms are concentration problems, insomnia, outbursts of anger, or increased sensitivity to external factors. An exaggerated reaction to the stimuli

of the outside world can rapidly lead to a decrease in the quality of the individual's functioning in society.

These symptoms are ordered by the "DSM-IV-TR Diagnostic Criteria" (Eng. *Diagnostic and statistical manual of mental disorders*, DSM). This is a manual with the classification of mental disorders issued by the American Psychiatric Association. It describes and systematizes known psychiatric conditions, defines them and describes their symptoms as well as methods of dealing with people affected by them. DSM-IV-TR is still the most widely used version of the DSM manual in Poland.

Symptoms of the Posttraumatic Stress Syndrome occur in different periods of time. In some people, the first symptoms can be observed immediately after the event, while in others appear only after a longer period of time. Their continuity is essential for the proper diagnosis of the disease. In order to clearly identify PTSD in a given person, symptoms must occur for at least a month and negatively affect various areas of the psychological and social functioning of the individual. According to DSM-IV, the basic criteria for posttraumatic stress disorder include three key groups of symptoms:

1. Intrusive memories – re-experiencing a traumatic event, recurring memories, flashes (flashback). There are also sudden attacks of discomfort caused by circumstances reminiscent of or associated with traumatic events.
2. Avoidance – malaise, numbness, as well as conscious and active avoidance of any stimuli, factors, places, facts, and circumstances associated with or that, may resemble an event, situation or stressor to whose action a person has been exposed.
3. Hyper agitation – a permanent state of excessive psychophysical stimulation, which manifests itself in constant states of increased psychophysical sensitivity, purposeless motion, anxiety, and nervousness that did not take place before participation in the stressful event. These states are most often manifested by insomnia, deconcentration, excessive vigilance, and increased reaction of surprise [1, p. 110].

It is obvious that some of the above-mentioned symptoms do not necessarily mean PTSD, as they may be signs of completely different mental disorders. The role of the diagnosing doctor is crucial here, since it is inevitable to distinguish and systematize as many symptoms as possible in the patient along with showing a direct relationship with the traumatic situation in his/her life.

3. Changes in DSM-5 in relation to DSM-IV

In May 2013, the fifth version of the DSM manual was released. The main changes compared to the previous, fourth version (DSM-IV) relate to the qualifying change of the Posttraumatic Stress Syndrome (PTSD) since it had been considered a type of anxiety disorder and began to be regarded as a stress-induced posttraumatic disease.

Initially, in previous versions of DSM, PTSD was inextricably linked to stressors inducing it, which a patient either experienced personally or was their direct witness so that one could talk about a cause and effect relationship with the following post-traumatic

stress disorder. In the present fifth version of the manual the concept of the PTSD-triggered factor – still called the stressor – has been significantly extended [4].

Currently, an event of a traumatic nature does not have to be felt or experienced by the patient. What is more, according to DSM-5, events that happened to his/her relatives, family members, friends and led to their tragic, dramatic and violent death can also cause a post-traumatic syndrome.

In its present form, the book attaches much greater importance to the symptoms of PTSD itself than to its very source in the form of a stressor, as well as direct reaction to a traumatic event. In the manual one can find as many as four sets of symptoms, instead of the previous three, indicating the occurrence of the disease. These include [5]:

A. Re-experiencing (previously "intrusive memories") – spontaneous remembrance of a traumatic event, recurrent dreams related to an event, intrusion (*flashback*) or prolonged psychological distress.
B. Avoidance of, for example, unpleasant memories, thoughts, feelings or external stimuli associated with an event.
C. Negative changes in cognitive content and mood related to the traumatic event (a new symptom in DSM-5), among others:
   – persistent, exaggerated negative beliefs or expectations about oneself, others or the world,
   – persistent negative emotional states (e.g., fear, anger, guilt or shame),
   – blaming oneself or others,
   – feelings of alienation, separation from others,
   – significantly reduced interest or reduced participation in important activities.
D. Agitation (previously "hyper agitation") – this category includes the following changes in stimulation and reactivity:
   – nervous behavior and outbursts of anger,
   – self-destructive behavior,
   – problems with concentration,
   – exaggerated "start" reaction,
   – sleep disturbance.

Nonetheless, the basic criterion is the mentioned earlier:

E. Exposure to death, threat of death, serious injury or sexual violence manifesting in one or more of the following ways:
   – direct experience of a traumatic event,
   – being a witness (personal) of an event that happened to others,
   – obtaining information that someone close to them (family members, friends) participated in a traumatic event. In the event of death or threat of loss of life of a family member/close friend, the event must have features of violence or accident,

– experiencing repetitive or extreme exposures to the aversive details of a traumatic event (e.g., rescuers collecting human remains, police officers who have insight into the drastic details of child abuse) [4].

The time criterion for the occurrence of symptoms remained unchanged and, similarly to DSM-IV, it has been determined for a minimum of one month. The novelty, however, is to define diagnostic criteria for PTSD in children under 6 years of age.

The literature on stress distinguishes three basic types of posttraumatic stress syndrome – PTSD:

1) acute PTSD, when symptoms last longer than 3 months;
2) chronic PTSD, when symptoms last longer than 3 months;
3) PTSD with a delayed onset, when the symptoms appear after about 6 months.

4. Life after a traumatic event

The described symptoms of PTSD significantly limit and hinder the life of a person who has survived a traumatic event. Mental indifference and attempts to isolate oneself from society are connected to the individual's sense of alienation. The limited showing off and feeling of emotions, as well as the abandonment of previous activities and interests, arouse anxiety and misunderstanding among relatives [6]. The lack of understanding of the problem often makes them mobilize and even force the person after the trauma to be active. The permanent state of agitation and nervousness in the person, combined with increased sensitivity to external stimuli and constant pressure from the family, are frequently the direct cause of outbreaks of aggression, both towards accidental people and members of the immediate family. The occurrence of such a fit of rage is favored by impaired self-control in a person affected by a posttraumatic disorder.

PTSD also disturbs intimate relations between partners because the physiological dimension of the disorder may also affect the sexual functioning of the individual and weaken libido. In addition, the chronic problems of establishing and maintaining interpersonal contacts, both in the family and outside, constitute a direct cause of problems with getting and maintaining work [3]. A high unemployment rate is characteristic for these people. This in turn is the reason for further deepening of the symptoms of alienation and aggression.

Most people who have been involved in some dramatic events suffer from psychological injuries. Obviously, not every traumatic experience in each person will be caused by PTSD. Psychological crisis intervention is extremely important in such situations – in other words, the time when the victim of stressful and traumatic events is surrounded by professional medical and psychological care. This support cannot, however, end with intervention and consultation immediately after the event, but should, and even must, last for a longer period of time, until it is absolutely certain that more serious disturbances associated with stress did not and will not occur in the person. Such a person should be subject to constant control, even if the symptoms of posttraumatic stress do not appear.

However, it should be remembered that PTSD can affect not only people who experienced a crisis situation directly, but also rescue services that provide assistance shortly after the event, and symptoms on the borderline of PTSD may be manifested in people particularly related to the victims of the attack (e.g., parents).

The degree to which a person is able to cope with a stressful situation largely depends on the nature of the situation in which he/she is found [3]. Therefore, it is necessary to constantly work on expanding the pool of available strategies for coping with stress. That will allow for the freedom to choose the right method for dealing with a specific situation. Psychological education in stress matters, methods of defense and counteracting, as well as elimination of its negative consequences, is extremely important in this context.

5. Psychological, physical and social conditions of terrorist events on the basis of terrorist attack on the Utoya island

The date of July 22, 2011 is one of the most dramatic days in the history of Norway. On that day two terrorist attacks took place in this country. The first attack was in the center of Oslo. At 3:20 p.m., a strong explosion shook the office building of Prime Minister Jens Stoltenberg from the Labor Party and other government buildings. As the effect of this terrorist act, eight people were killed, and the huge force of the explosion devastated the nearby area. Evacuation of many buildings, among others, shopping centers, the train station and the Parliament building. On the other hand, the Armed Forces and the Police watched over safety in the center of the capital [7].

More than two hours after the assault, another drama took place on the Norwegian island of Utoya. An armed man opened fire on several hundred young people from the youth labor camp of the Norwegian Labor Party. Initially, the assassin dressed up in police outfit inspired trust. He informed that his appearance at the camp was related to the bomb attack in Oslo and was intended to control safety. In the moment when a large number of people gathered in one place, he started the attack. Then he moved deeper into the island and kept on killing methodically. Confused people began to run away. To avoid deadly shots, they pretended to be dead, lying under the bodies of murdered friends, or jumped into the lake trying to reach the shore. The Norwegian media appealed to the relatives of the victims not to try to make contact first, because the sound of the phone could reveal a place of refuge and expose the people on the island to danger. The attack resulted in the death of 69 young people. Most of the victims were between 13 and 22 years old [7]. The 32-year-old Anders Behring Breivik, an indigenous Norwegian with radical right and nationalist views, turned out to be the perpetrator of the bomb attack and the massacre. The organized attacks had an ideological background as a sign of protest against the Islamization of Norway and the policy of multiculturalism.

Undoubtedly, it was a traumatic event that might affect the mental and physical health of individuals, as well as their social functioning. In autumn 2011, the Norwegian Center for Research on Violence and Traumatic Stress (NKVTS – Nasjonalt Kunnskapssenter

om Vold og Traumatisk Stress) began a comprehensive study of the experiences and subsequent psychophysical reactions of witnesses of the terrorist act on the Island of Utoya. The study has been longitudinal and its completion is planned in 2020. As of now, the data was collected in three rounds: 4-5 months, 14-15 months and 30-31 months after the attack.

The first phase of the interviews was completed in autumn 2011, and the summary report was published in 2012. 332 people who survived the attack of Anders Breivik and 463 parents and caretakers of the youth from Utoya took part in it. The next data collection took place at the turn of September and October 2012. The request to complete the questionnaires was sent to people who participated in the survey a year earlier and other people who witnessed the terrorist attack. Amongst them, 291 young people and 435 guardians agreed to participate. The third phase of information collection was completed in 2014 and included 266 participants and 377 parents/guardians. During the third round, information was also obtained from public registers, such as disease records based on data from hospitals and primary health care centers. The information has contributed to the deepening of knowledge about assistance activities and can be the basis for building a support system in case of subsequent events [8].

The interest of the researchers focused primarily on the impact of the terrorist event on the mental and physical health of the victims. They were also asked about social support received from relatives. Due to the young age of the victims, the focus was also on school issues. The questionnaire included a question about learning achievements and support from educational institutions.

Psychological reactions after traumatic events are the body's response to a significant psychological burden. The mechanism of action in a stressful situation is to help an individual fight or escape in the event of a threat. Activating the energy reserves of the individual and strengthening the functioning of the body's internal systems, as well as silencing systems useless at the time of danger (e.g., reproductive system), changes the scope of the person's activity. When facing severe and acute stress, the body's stress reaction may persist for a more extended period and therefore disturb the existence of the person. Besides, posttraumatic stress reactions often co-occur with other disorders. Although these are not indications for PTSD to be diagnosed, their presence significantly impairs functioning. These include depression, addiction to alcohol and psychoactive substances, anxiety disorders (phobias, generalized anxiety disorder), and personality disorders. Attempts to reject all the thoughts of a traumatic event cause physical stress, sleep problems, eating disorders, difficulty concentrating, as well as irritability.

According to the first NKVTS report, almost 50% of the people from the Island of Utoya reported symptoms that could be diagnosed or be at the borderline of PTSD [9]. In contrast, 7 out of 10 participants pointed to symptoms of depression and anxiety that hinder daily life after the attack. In subsequent surveys, a downward trend in both issues was apparent. In the report published in 2013, symptoms of posttraumatic stress disrupted the functioning of 20% of the respondents, while 40% of those who survived the attack experienced anxiety and depression [10]. The third round of interviews re-

sulted in a further decrease in the number of people displaying post-traumatic stress disorder symptoms to about 16% of the respondents [11]. Anxiety and depressive disorders were maintained in 20% of the respondents. It is worth noting that currently, an estimated 3-6% of the general population suffers from PTSD. The result of 16% among witnesses of the Utoya massacre still far exceeds the data obtained in the general population. Therefore, despite a significant drop in the number of respondents who reported symptoms of posttraumatic stress disorder within three years, the results of NKVTS reports still give rise to concern [11].

Consequences of severe, traumatic events have not only affected the youth staying on the Island during the terrorist attack, but also refer to their immediate families. As has already been mentioned, parents of the young people from Utoya were also asked to participate in a series of questionnaire surveys. Symptoms at the borderline of PTSD initially occurred in 25% of the surveyed caretakers [9], in 20% of them in the second round of talks, and they were present in 10% of the respondents in 2014. Shortly after the attack, 4 out of 10 parents reported problems as regards the experience of depression and anxiety. After more than a year from the event, these problems disrupted the functioning of about 3 out of 10 respondents. The last available phase of the study brought further decline and the complaints concerned about 20% of the surveyed guardians. Strong family ties influenced the mental state of the parents of the victims from Utoya. The excess of stress stimuli reaching them, the situation threatening the life of close relatives, and the unique dimension of the parent-child relationship, become the premise for the possibility of a strong psychological and emotional reaction.

The somatization of symptoms often occurs with stressful events. Long-lasting tension persisting in the body affects its internal functioning and can manifest itself mainly in headaches or abdominal pain. At the time when these symptoms last despite the absence of disease, psychosomatic complaints may be suspected. Among children and adolescents, the most common of them are the previously mentioned headaches, stomach pains, constipation or diarrhea. During the first round of research, more than 50% of the participants reported that they felt physical ailments such as stomach pains, headaches, and weakness after they had experienced a traumatic situation, which significantly interfered with everyday life [9]. In the next round of interviews, those symptoms persisted in approximately 40% of the respondents [10]. In the third year of research, the number of people suffering from physical ailments did not change, and 4 out of 10 participants still suffered from physical discomfort, which significantly obstructed the normal functioning [11].

The most important protective factors in the field of stress include social support. Closed people with whom one can openly talk about the event and emotions felt provide support and valuable resources to the individual. The analysis of the reports published after the Norwegian attack has proved that between 85 and 90% of the respondents declared that they received such help and experienced closeness, love and care from their relatives. The second essential issue in the aspect of social support is the ability to take advantage of other people's assistance. For fear of overloading others with their own experiences and emotions, with time, some young people began to

avoid talks related to the attack. The encountered communication barriers can have a negative impact on mental health. The concern is justified because it is not easy to balance between caring for one's own mental and emotional needs and excessive encumbering and absorbing others.

The question about positive changes associated with a terrorist attack may be surprising. When a traumatic event, here a terrorist act, is well worked through, it offers the opportunity to rebuild one's image of the world and the perception of reality. The destruction of existing structures and the development of new methods of action and functioning gives the field for re-evaluation of the principles that guide the individual in life. The priority is closer relations with other people, building more lasting relationships and focusing on other dimensions of existence. Surviving a terrorist assault can also ultimately strengthen self-esteem, create an image of oneself as a strong person, and give the individual a sense of causation. All this requires, however, the use of various resources, the sense of afore-mentioned social support, and often specialist help. Among the young people who left the Norwegian island on July 22, as many as 70% of them declared in the second round of research that they saw at least one positive change in their approach to life [10]. In 2014, the number decreased slightly and this feeling was experienced by 6 out of 10 respondents [11]. First, the transformations concerned everyday life – the respondents appreciated everyday life and its minor aspects without excessive concern for the future and became more willing to find advantages in other people.

Discussing the psychological and physical consequences of terrorist attacks does not cover all project points available in individual reports. It is worth mentioning that the surviving terrorist incident significantly affected the young people's learning achievements, which were significantly reduced. Almost half of the respondents indicated that it was very difficult to perform everyday tasks at least in the first period after the event. However, one-fourth of the examined participants noticed that they lost their previous interests, which made them happy before the attack [9]. It is evident how dramatic events significantly disturbed functioning in everyday life – previous responsibilities, activities and interests have lost their relevance and meaning. This is like the new symptom of PTSD distinguished in DSM 5, namely negative changes in cognitive content and mood related to the traumatic event.

The long-term nature of the research allows following the victims of the attack, controlling the impact of events on their functioning and monitoring the forms of assistance available to the victims.

Conclusion

Stress, which is one of the essential components of the body's adaptive processes, is the main factor influencing the reactions and behaviors of individuals who find themselves in conditions of threat to life and health. Every person experiencing unfavorable external factors, psychological injuries, failures, feelings of danger, wounds or shock, i.e., stressors, responds with a variety of physiological changes. It is to stimulate the

adaptation process to a new situation that is unfavorable for the individual. Stress response, its intensity, severity or duration depend on both the individual, his/her adaptive abilities, and the factors that trigger the reactions.

Particularly intense stress and its health consequences mainly affect those individuals who must function for a longer period of time in conditions of imminent threat to life. However, that is not the rule. It happens that short-term stress, but with a much higher intensity, especially in people not prepared for this, without proper training, can cause far more negative changes than a trauma of lower intensity but with a longer exposure time. The conditions of increased risk and the stress associated with them have particularly negative health consequences, drastically disrupting the immune system and destroying many tissues.

The victims of the described situation are all those who survived the Anders Brevik's assault on the Island of Utoya. They survived a direct attack on their lives, but the price they had to pay to save their lives, the trauma they experienced fighting for their own survival, enormous. Traumatic events of July 22 have left irreversible traces in each of these people.

It is evident that the symptoms of the effects of trauma will manifest themselves differently in each of the survivors, and in each of them, the post-traumatic stress will occur with varying intensity and time. In some families, the participants of the events will only suffer, while in others the victims will also be their close relatives – both directly affected by posttraumatic stress as well as by the behavior of survivors who have PTSD. Undoubtedly, however, each of these people must be surrounded by care, observation and have professional help provided. Events such as the attack conducted by Anders Brevik, although more and more often occurring in modern Europe, do not belong and will never belong to the situations for which a human is mentally prepared.

The key to the effective elimination of the adverse effects of functioning in conditions with an increased impact of stress factors is primarily knowledge about the mechanisms of stress functioning, the reactions that it can cause in the human body, its symptoms, and the risks it brings. Therefore, education and actions to prepare the population for similar events are fundamental since, unfortunately, such situations are likely to occur in the future. Hence the special care of those who survived is indispensable.

Acknowledgement

No acknowledgement and potential founding was reported by the authors.

Conflict of interests

All authors declared no conflict of interests.

Author contributions

All authors contributed to the interpretation of results and writing of the paper. All authors read and approved the final manuscript.

Ethical statement

The research complies with all national and international ethical requirements.

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Biographical note

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Zespół stresu pourazowego (PTSD) po zdarzeniu terrorystycznym na przykładzie zdarzeń na wyspie Utoya

STRESZCZENIE

Artykuł porusza problem zespołu stresu pourazowego w ujęciu psychologicznym oraz historycznym, ze szczególnym uwzględnieniem analizy reakcji na sytuację stresową, jaką jest atak terrorystyczny.

Pierwsza część tekstu została poświęcona teorii stresu pourazowego. Autorzy przybliżają fizjologię, mechanizmy oraz genezę zjawiska stresu pourazowego, jego krótki rys historyczny oraz współczesną klasyfikację kryteriów decydujących o diagnozie PTSD, zarówno według podręcznika DSM-IV-TR, jak również uwzględniając zmiany wprowadzone przez DSM 5.

Po zaznajomieniu czytelnika z podstawową terminologią dotyczącą zespołu stresu pourazowego autorzy przechodzą do analizy przypadku sytuacji stresogennej, jaką jest zamach na norweskiej wyspie Utoya. Artykuł opisuje wydarzania z 22 lipca 2011 r. oraz skupia się na analizie posttraumatycznych reakcji, które nastąpiły po zamachu wśród jego bezpośrednich uczestników, jak również wśród ich bliskich.

Analiza ta obejmuje nie tylko kwestie stricte statystyczne, czy też psychologiczne lub medyczne zjawiska stresu pourazowego wśród ofiar Andersa Brevika, ale autorzy, na podstawie działań podjętych przez służby norweskie, podejmują próbę wyciągnięcia i usystematyzowania wniosków na temat ogólnych zasad postepowania z ofiarami potencjalnych zamachów terrorystycznych.

SŁOWA KLUCZOWE PTSD, terroryzm, zespół stresu pourazowego

How to cite this paper

Habrajska I, Golebiowski A. *Post-traumatic stress disorder (PTSD) after terrorist attacks on the example of events on the Utoya island*. Scientific Journal of the Military University of Land Forces. 2019;51;4(194):633-45.

DOI: http://dx.doi.org/10.5604/01.3001.0013.6456