The concept of prevention and treatment of secondary post-traumatic stress syndrome of National Fire Brigade workers

Introduction

Working in rescue units by many experts in the field of psychology is considered to be one of the most stressful professions. National Fire Brigade (NFB) employees are permanently exposed to stress related to a great responsibility for the life of people they help. Accumulation of tension and trauma experienced while serving may be destructive to their professional life as well as personal one. This profession, although being the source of stress, attracts people with a different personality type than people choosing occupations which are much less risky and stressful. Fire officers and other emergency workers have significantly greater resistance to stress, greater willingness to seek challenges, the ability to self-control, willingness to help and involve in the rescue operations. To a large extend, they consider their work satisfactory. They often set themselves much bigger demands than it is necessary, therefore, as a result of failure, the inner suffering is much greater than among other people. They are inclined to action and the rapid attainment of the aim, and accurate decision making as well as risky behaviour, exposing themselves to injuries, disorders and death to rescue somebody’s life.

These populations differ from the original trauma victims due to: environmental requirements weighing them down, the tendency to identify with the victims, the organizational structure under which they operate, the possibility to experience multiple injuries by them, widespread expectations from those people to be resistant to injury. For the occurrence of post-traumatic disorders, Richard A. Bryant stresses the importance of each of these factors. Mental health professionals who work with them should be mindful of special pressure of requirements under which emergency services must operate. It includes time, physical exercises, extreme environmental and climatic conditions as well as expectations of the community. Psychologists point out that the requirements in most people usually lead to a stress reaction. In fact, showing it is considered to be adaptive to survive and control the situation. Aid personnel should be aware of the fact that the stress reaction is not always pathological and even non-adaptable. It is recommended that NFB workers’ reactions are considered, taking into account the proximity of these stressors [1].

In specialised literature two models of actions to prevent the development of Secondary Traumatic Stress Disorder (STSD) are described. The first model was created for emergency services, such as fire brigade, police or ambulance service. In these rescue units, exposure to traumatic events is very high and that is why it worth creating teams of people dealing with preventive action. There is no sense to create such groups in companies in which exposure to a traumatic event, and thus the occurrence of post-traumatic stress among workers, is small. In such institutions there should be introduced a crisis intervention model which was developed by Braverman.

The model of prevention of secondary post-traumatic stress disorder in rescue services was developed by Jeff Mitchell of the University of Maryland. According to the English terminology, the full name of this team is Critical Incident Stress Debriefing Team (CISD). Due to no appropriate term to replace the word debriefing in the Polish language, it will be used to determine the team aimed at preventing the occurrence of post-traumatic stress disorder. The team whose task is to conduct debriefing consists of professionals in the field of medicine (a doctor, a nurse, a paramedic) and people employed in the institutions of emergency. It is important that such people occupy both, managerial and entry-level positions. The

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team may invite other people to cooperate, e.g. the clergy. It is accepted that an average team consists of about 20-40 people, but one third of the team should be medically qualified. Within such a group, if it is necessary, there are formed operation units undertaking action in different situations. The team operating this way should consist of four people, including one person being a specialist in the field of medicine and this is the one who should be a team leader. The goals of the team conducting the debriefing that have been distinguished by the author of this method are:

1. preparing the entire emergency services personnel to effectively cope with stress arising from work,
2. assisting people among whom the occurrence of adverse effects of exposure to traumatic events was observed,
3. dealing with the promotion of knowledge about stress and ways to fight it,
4. initiation and conduct of preventive programmes aimed at reducing chronic stress caused by job permanent features [10].

The team is active all the time, not only when in its operation area the traumatic event occurs. Due to the small number of medical personnel which can contribute to the activities of the team, usually a team for individual departments is not organized, but one team is created for all emergency services. From the organizational point of view, the team should be assigned to one of the services, e.g. fire brigade. The leading institution creates better possibilities for the smooth functioning of the group – it is engaged in raising funds, allocating space to work, taking care of team training as well as acting as a coordinator of activities. The team, and to be specific, the groups chosen for particular action, is obliged to carry out preventive operations on the action place or on the institution place. In the first case, one can develop two types of activities:

1. During rescue operations trained lifeguards who are members of the debriefing team (and for this reason they have knowledge and skills) should recognize the most stressed rescuers involved in the action and assist them as well as victims and family members.

2. In the case of an action to a large scale which involves about 50% of emergency services and when the action takes over eight hours, a special area separated from the place of the action should be organized where the weary rescue teams can have a moment of rest. It is estimated that the demobilization process usually takes about 30 minutes. At that time, a member of the debriefing team for 10 minutes talks about stress, introduces NFB officers to the causes and consequences of its occurrence. The remaining 20 minutes are intended for food and rest. The separate space should meet the following criteria:

- enable rescuers efficient information about the symptoms of stress and ways of alleviating common symptoms,
- allow firefighters to rest and recover before the next return to action at the action place,
- create for a commander appropriate conditions to deliver important information but also to thank for taking part in the action,
- enable adequate recovery of tensions arising when participating in the action,
- provide psychological first aid to firefighters who need it [8].

Members of the debriefing team are also prepared to carry out preventive activities outside the place of rescue in the form of brief encounters in the unit. They also deal with the emergency after the rescue operation. Such a meeting is organized no later than four hours after the traumatic event. It is assumed that this is the most suitable time for the recovery of emotions evoked during the rescue action. It lasts from 30 to 45 minutes. It is organized mostly by a colleague who is a member of the debriefing team or a psychologist. The most important goal of the mentioned meeting is to stabilize the team emotionally after returning from the action. Emotional stabilization plays an important role before taking further service and performing the task. It is also important to relieve stress and to stabilize emotions of officers before returning home. The meeting allows the disclosure of psychological reaction to critical events taking place during activities carried out during the action. However, the most extended form and generating the expected benefits when it comes to de-stress traumatic events attendees, is a meeting called the debriefing. This type of meeting must be fully planned and structured. It is the most important meeting for NFB officers as it is during this meeting when it comes to releasing emotions that arose during the action. Fire-
fighters realize that reactions that arise in their psyche are not indicative of pathologies, and are normal reactions to an abnormal and unprecedented situation [3]. Thus the debriefing is a discussion conducted in private conditions. Under any circumstances this should not be a psychotherapeutic meeting because it is not possible to achieve two main goals that this meeting should bring:

1. reducing the critical impact of the event on the psyche of participants of the action,
2. accelerating the process of recovery to the state before the event.

The main benefit that a debriefing meeting brings is to eliminate misconceptions about the fact that the response to traumatic events was abnormal. During such conversations also the cohesion of the team strengthens and the bond between firefighters tightens. Debriefing meetings should be organized no later than 72 hours after the traumatic event but not earlier than 24 hours after it. It should be conducted by a psychiatrist or a psychologist as well as by several rescuers. However, they cannot be members of the group to which the help is given. The debriefing takes about three hours and it is organized when the following symptoms are noticed:

1. many firefighters manifest stress,
2. the observed stress symptoms are severe,
3. officers start to make mistakes which have not been committed yet,
4. the group itself takes the initiative to help,
5. the event in which firefighters participated was extraordinary and so far officers have not had such experiences,
6. distress symptoms last for more than three weeks.

Phases of the debriefing are its characteristic feature. The initial phase is intended to inform participants about the purpose of the meeting, about the fact that the meeting is confidential and voluntary. The next step is to move to the phase of facts in which rescuers talk about the tasks performed during the action. Then, participants are asked to submit thoughts that accompanied the performed actions. This is to show personal relationship to the situation. The reaction phase is the part of the meeting in which participants answer the question: ‘What was the worst thing that happened during the action?’ This question is very important because it impels firefighters to start processing information about the event at the emotional and cognitive level [7]. Another element of the meeting is to reveal symptoms of distress that occurred during the action observed within 24 hours after the attack and several days after the traumatic event. One of the last elements of the meeting is a learning phase. During this phase participants are made aware that their reactions are not unusual and over time they will weaken, however, it is necessary to learn the techniques causing the weakening of symptoms and the techniques that will help control their own stress. After learning phase carried out in such a way, there comes the right moment for each attendee to comment, in any suitable way, on what has happened during the action and to show their emotions that have accompanied during the meeting. The aim of the person conducting the meeting is to tell participants what they have not presented during the debriefing because of the lack of awareness or simply because of fear to admit to it. This lack of complete openness is caused for example by inability to verbalize certain feelings and to admit to them. It often happens that in this phase of the meeting participants make commitments to each other concerning supporting each other during further actions. It also happens that such a meeting leads a group of firefighters to take the initiative of proposing further meetings and trainings. The debriefing meeting must end with a summary given by the conducting personnel. It should be explained that there is always the possibility of help and one should not be afraid to take advantage of it. This is especially important for people who still feel the need to talk and who reveal the adaptation problems [6].

The treatment of secondary post-traumatic stress disorder

Treatment procedures used for disorders of post-traumatic stress are various. It is worth noting that, especially in the last decade, there has been a significant development of specific approaches and techniques. Following the subject literature, one can observe the use of radically different therapeutic approaches – starting with analytic therapy, through cognitive behavioural therapy, hypnotherapy and pharmacotherapy. Despite the wide variety and multiplicity of trends and techniques used, there is still no
conclusive evidence on their effectiveness. Surely even in the nearest future determining the efficacy measured with recovery will be still impossible for methodological reasons.

Taking into account the development of disorder symptoms after the traumatic event, the most appropriate methods seem to be those which have a direct link to learning theory, cognitive theory and the theory of emotions. From this point of view, it is recommended to apply procedures based on assumptions of rational emotive therapy and cognitive emotive therapy. The combination of these two procedures brings good effects. Following the literature, they are mostly used among patients with the syndrome of post-traumatic stress disorder. It should be emphasized that they arouse the least controversy concerning the effectiveness of the treatment of people with anxiety disorders, as well as traumatic disorders associated with post-traumatic stress disorder.

In order to bring closer the issue of the therapy of a person being diagnosed with STSD, one should present the general principles of disorder treatment. These principles include:

- building confidence and safety in the relationship between a patient and a therapist,
- standardisation,
- education,
- reinforcement,
- cooperation.

Building trust and safety is a standard procedure of the therapist, regardless of the difficulties reported by the patient. This attitude is particularly important in the case of the patient who has experienced highly traumatic situations. To make the therapy effective, the patient must have a sense of safety and be certain that the therapist is strong enough and ready to be able to bear the drastic vision presented by the patient. Without a doubt, the patient must feel trust and understanding on the part of the therapist, he or she must be sure of support, compassion and emotional warmth. Standardisation is the next step. It is about normalization of the patient’s behaviours during the situation itself, but also those that appear later. The most important element of normalization is to emphasize that the behaviour and experiences felt by the patient are typical behaviours for people experiencing highly traumatic situations. Education – an element strongly associated with normalization, concerns presenting to the patient above all the potential development of the situation. It concerns the patient realizing the potential psychological difficulties. The purpose of education is also to provide, in an accessible way, information on the biopsychosocial model of post-traumatic stress disorder. The therapist must, in a clear and accessible way, provide the information how STSD will affect the areas of a patient’s life. Meichenbaum also recommends a discussion with the patient about stereotypes that arose about people’s reactions to extreme situations, threatening or even traumatic ones. Education must be an integral part of the therapy and it should last throughout its duration. An important element of education is its simplicity and addressing a clear message to the patient. One should beware of academicism and the use of difficult wordage. The patient needs to feel supported. It is the best when the patient themselves reveals important information regarding the conduct of disorders. The therapist can only advise discreetly. Strengthening is another therapist’s task. Positive mobilization of the patient by the therapist will result, with the cooperation of both sides, in recovery. Individuals diagnosed with secondary post-traumatic stress disorder are uncertain of their own Self, deny their own abilities and possibilities to cope at a private and professional level. Psychologists point out that one of the dominating factors is the collapse of self-confidence, and traumatic experience is only the confirmation of their own inefficiency and worthlessness. Such self-inadequacy is a factor that must be eliminated by the therapist. Rebuilding self-esteem and the ability to cope with difficult and often stressful situations constitutes the important component of the treatment of post-traumatic stress disorder. Of equal importance is cooperation between the patient and the therapist. Avoiding academicism and sophisticated comparisons will enable to establish contact with the patient. A very important role is the partnership between the therapist and the patient. The therapist works with the patient to resolve their problems and to implement systems to eliminate unwanted stressors. It is also an advisable idea to discuss with the patient anticipated moves in the treatment and the taken measures. Such therapist’s behaviour encourages the patient to share responsibility for the conducted therapy and makes the patient aware that he or she also makes decisions important in the process of therapy, and the therapist respects them and uses the patient’s thoughts during treatment. In this way, the patient is not a subject but an object, and thus the possibility to
rebuild the patient’s self-esteem by the patient, the sense of resourcefulness and self-confidence opens up. Of course, it is the therapist who is a guide and their role is unquestionable in any way. Thanks to the trust and authority given by the patient, the therapist can point the way of therapy, giving the patient the opportunity to participate in the planning of treatment [4].

When it comes to the displaying techniques in the treatment of post-traumatic stress disorder, there can be distinguished many different treatment options. From the assumption, the variety of these techniques is used to activate the traumatic anxiety structure stored in patient’s memory for modification purposes. Experts claim that the multiple processing of the traumatic event favours the process of habituation and reduction of anxiety associated inextricably with the memories of trauma. In this mechanism there is an erroneous assumption occurring in the patient that it will remain forever if the escape or avoidance mechanism is not established. It has been proved that exposure therapy techniques are one of the most effective forms used in intrusion therapy, i.e. recurrence of painful memories, nightmares, flashback. However, one should be careful that they are used properly and one should not focus only on them, as they can lead to the deterioration of the patient’s condition. The most commonly used exposure techniques in the treatment of post-traumatic stress disorder include:

1. direct exposure therapy,
2. systematic desensitization,
3. flooding technique,
4. rewind technique by Muss,
5. Traumatic Incident Reduction (TIR),
6. cognitive processing therapy (CPT),
7. stress resistance training.

One can also distinguish alternative methods which are also used in the treatment of post-traumatic stress disorder:

1. Callahan’s Thought Field Therapy,
2. Trauma Recovery Institute method,
3. Sensorimotor Therapy,
4. Eye Movement Desensitization and Reprocessing (EMDR) – a method considered to be controversial [9].

Pharmacotherapy

Pharmacotherapy in the treatment of patients with post-traumatic stress disorder should be the supportive treatment aimed at reducing psychophysiological symptoms occurring in the course of treatment. However, the observation made by Kudler and Davidson, who analysed the effects of pharmacotherapy among people with post-traumatic stress disorder, shows that the effect of this type of activities is at best palliative. It is, therefore, not recommended to use only pharmacotherapy to treat the patient. Drug therapy itself rarely leads to remission, and the improvement acquired by drugs is slow [3]. Drugs that are used in therapy are mostly antidepressants. In the course of observation it has been noted that the reaction to the drugs used is delayed, and the improvement is usually seen after four weeks of taking pharmaceuticals [1]. Medications are used to minimize the occurrence of the following symptoms:

- anxiety and fear, insomnia, increased orienting reflex, problems with concentration, strong re-experiencing of the traumatic event – medicines of choice are tricyclic antidepressants;
- physiological hyperactivity and avoidance of stimuli associated with the trauma or its booster – serotonergic drugs;
- tonic hyperactivity of the sympathetic nervous system – propranolol;
- irritability and outbursts of anger as well as the presence of the other mood disorders – tricyclic antidepressants [5].

Clinical studies on the effects of pharmacotherapy during the therapy of patients with STSD gave a positive result in the form of lowering the level of fear and intrusion. It resulted in cooperation improvement with the patient and allowed the greater involvement of the patient in therapy undertaken, with
the aim to achieve the qualitative improvement in a mental status. However, the use of pharmacotherapy itself should be consulted in any situation, and the decision to implement it should be made by a team that includes psychologist leading the therapy and psychiatrist who will be responsible for pharmacotherapy. The decision to implement pharmacotherapy is an extremely difficult step. It should be determined when the drug is to be implemented, and when it should be discontinued, as it does not interfere with the process of rebuilding the patient’s resources that will be needed to effectively cope with stress. Before the therapist makes the final decision, it is recommended that the previously conducted treatment is analysed. The analysis must be carried out on the basis of the benefits that the patient can obtain from the implementation of this type of the method. In order for the assessment to be correct, it seems useful to use the questions raised by Friedman and Southwick:

- Is pharmacotherapy perceived by the patient as a tool that will let him or her regain the inner balance or will it rather contribute to losing control over the situation?
- Will the offer of using pharmacotherapy be treated by the patient as information suggesting that the therapist prefers not to talk to the patient?
- Will the recommended pharmacotherapy not be understood by the patient as a proof that the therapist does not believe in patient’s internal resources and is not able to believe that these resources are efficient for recovery and therefore, suggests pharmacotherapy?
- Can pharmacotherapy strengthen regression and consolidate dependency relations?

However, the primary and the most important question the therapist should ask themselves is the question whether the pharmacotherapy that he or she wants to apply to the patient does not constitute an escape arising from helplessness in the face of the patient’s difficult case [8].

It seems that for professionals working with people affected by post-traumatic stress disorder, the most important question is the question of the technique that should be used to ensure the greatest possible effectiveness. There is no clear answer to this question. One could say that the answer is very difficult. Firstly, the research on the effectiveness has not received an indisputable methodology, and the interpretation of the carried out studies depends on the interpreter’s preferences. Not only the type of the selected method or the used technique decide about the positive results of therapy, but also trust and partnership between the patient and the therapist have a huge impact on the final outcome of therapy.

Abstract

The management of rescue services, despite the lack of education in the field of psychiatry, should be prepared for adequate and coordinated action at the time of the traumatic event. Their task is to prepare the institution to effectively deal with such events and effectively prevent the development of STSD among subordinates and clients.

Koncepcja zapobiegania i leczenia stresu pourazowego u funkcjonariuszy Państwowej Straży Pożarnej

Streszczenie

Kadry kierownicze służb ratowniczych pomimo braku wykształcenia z zakresu psychiatrii powinny być przygotowane do odpowiedniego i skoordynowanego działania w chwili wystąpienia zdarzenia traumacyjnego. Ich zadaniem jest przygotowanie instytucji do skutecznego radzenia sobie z takimi zdarzeniami i skutecznego zapobiegania rozwijowi STSD u podwładnych i podopiecznych.
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