

Analysis of the Use of Post-Trauma Care and Crisis Intervention Among the Emergency Services with Regard to Job-Related Psychological Strain

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Abstract

The central topic of this paper is the complex issue of providing crisis intervention, post-traumatic care, post-traumatic intervention care, psychosocial intervention services in the basic components of the integrated rescue system in the Czech Republic. We draw on theoretical knowledge and also on practical experience that members and officers of the integrated rescue system in their daily practice are involved in a number of highly traumatic emergencies and crisis situations. The negative impact of dealing with emergencies and crisis situations has a primary or secondary impact on their psychological state. Almost in their daily practice they encounter emotionally stressful situations such as traffic accidents accompanied by severe injuries or death of the participants, mass disabilities of persons, encounters with death (in various forms: natural death, death as a result of a criminal act, etc.), notification of deaths to survivors, dealing with psychologically and physically demanding conflicts with persons showing elements of aggression and aggressive (verbal and physical) behaviour, interventions against armed offenders, implementation of crisis communication (personal or telephone) with persons demonstrating suicidal intent, implementation of crisis communication with affected persons or their family members, implementation of communication with persons with specific needs (e.g. etc.), implementation of multicultural communication, etc. Thus, traumatic events affecting their psychological state occur in their daily practice. That is why a psychological examination (analysing their mental health as well as their level of resilience to stress, etc.) is part of their recruitment into the basic components of the integrated rescue system. Subsequently, their lifelong learning process includes post-traumatic care, strengthening resilience and the ability to cope with traumatic and stressful events, prevention of post-traumatic stress disorder, prevention of psychological distress or burnout syndrome, etc. Taking into account the above-mentioned facts, the basic components of the integrated rescue system have a system of providing post-traumatic care, and the characteristics of each system and the issue of providing this care is the subject of this paper.

KEY WORDS: *trauma, posttraumatic interventional, crisis, crisis intervention, Integrated Rescue System, Medical Emergency Service*

1. Introduction

Members and officers of the basic components of the integrated rescue system (IRS) in the exercise of their demanding profession almost in everyday practice find themselves in a number of emergencies or crisis situations in which their psyche is negatively affected by the impact of dealing with these traumatic events and crisis situations. Often these situations are accompanied by problematic behaviour on the part of both the persons affected (victims) and their family members or bystanders. A list of possible traumatic events that accompany the exercise of the profession of these professionals is already given in the abstract. The logical consequence of the influence of these situations is a process of primary or secondary traumatisation, which may initiate a chronic disturbance of their psychosomatic state. Taking into account the above-mentioned facts, a system of providing post-traumatic care is established in the basic components of the IRS, and the characteristics of each system and the issues of providing this care are the subject of the present paper.

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2. The impact of crisis situations and traumatic events on affected persons

A crisis situation can generally be defined as a situation that is accompanied by significant emotional pressure, the presence of stressors, and is largely outside the normal standard experience of the individual. The following situations can be included here, which are related to the performance of the profession of a firefighter, police officer, health worker (or health worker). Sudden death of a newborn or infant; death of a child due to injury, illness or crime; unsuccessful cardiopulmonary resuscitation, devastating injury to the human body; injury or death of a colleague in the course of the profession; extreme exhaustion following activity at the scene of intervention; providing first psychological aid or crisis intervention to victims of crime; particularly cruel completion of a suicidal act (e.g. mass casualty situation with a large number of injured and dead persons; terrorist attack; presence of insistent media at the intervention site, etc.

The psyche of victims in natural disasters is negatively affected by the impact of for example floods or fires, but on the other hand the negative experiences are partly compensated by a sense of belonging, mutual or neighbourly support, etc. In contrast, the psyche of victims is less able to cope with the impact of traumatic events or crisis situations deliberately caused by another person (e.g. cases of brutal violence, violence against children, fraud by vulnerable individuals, etc.). This starts a process of primary, secondary and tertiary victimization.

It is also important to note that psychological traumatization (primary and secondary) affects not only the victims but also the officers and members of the IRS. The concept of vicarious traumatization was introduced into the literature by McCann and Pearlman. Their theory of secondary traumatization was based on research into the presence of traumatisation symptoms in intervening professionals (e.g. police officers, firefighters, paramedics, etc.) who did not undergo the process of primary traumatisation, but provided assistance to victims of emergencies and crisis situations at the scene of the intervention as part of their profession. As a result of secondary traumatisation, these individuals may experience, for example, long-term (or permanent) changes in cognitive patterns, the occurrence of intrusive memories (flashbacks) of the traumatic event, the appearance of other symptoms of post-traumatic stress disorder, etc., i.e. it is a mediated (secondary) traumatisation [1].

As a consequence of negative traumatic influences, there are primary victims (thus those who directly experienced, saw, heard, touched, felt) but also secondary victims (e.g. survivors, family, friends, bystanders, etc.). Secondary victims are also officers and members of the IRS who provided assistance at the scene. In the literature, we encounter the term survivor [2].

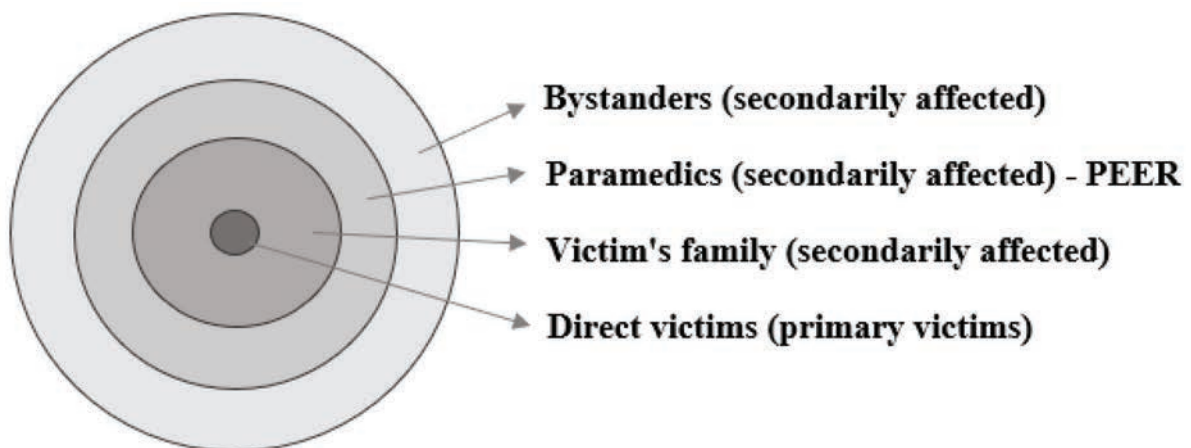


Fig. 1. Range of affected individuals [3]

Officers and members of the IRS at the scene of an emergency or crisis situation are obliged to provide victims or their relatives with first psychological assistance, which can generally be defined as a simple procedure aimed at stabilising the psychological state so that the situation for the affected person does not deteriorate further. The steps of psychological first aid include: making contact; establishing the victim's medical condition; protecting the victim's privacy; providing information about what is happening and listening; identifying and providing for the victim's basic needs; and keeping the victim safe. This also includes referral to follow-up care (e.g. medical, psychological, etc.).

3. Post-traumatic care in the IRS

Post-traumatic care at the Fire Rescue Service (FRS) of the Czech Republic (CR) was established based on the recognition that the profession of firefighter is one of the most endangered professions, with extreme physical and psychological stress. In 2002, the concept of the psychological service of the Fire Brigade of the CR was approved. Subsequently, psychological workplaces were established in individual regions. To ensure the provision of post-traumatic care, a Post-Traumatic Care Team was established in each region. The coordinator of the team is the psychologist of the FRB of the given region and the members are trained firefighters with personal qualities and motivation to help others, who are appointed by the director of the FRB of the region.

Members of the post-traumatic care team then provide post-traumatic care to victims of crisis situations and emergencies, as well as to members of the FRB of the CR and their families. Post-traumatic care for firefighters after an intervention means care provided to a firefighter who has experienced a traumatic event in connection with the performance of his/her tasks, which may negatively affect his/her further performance of service. The aim is to reduce the so-called impact of the event and to provide care to reduce the negative impact on the psyche of the affected person and the possibility of developing post-traumatic stress disorder.

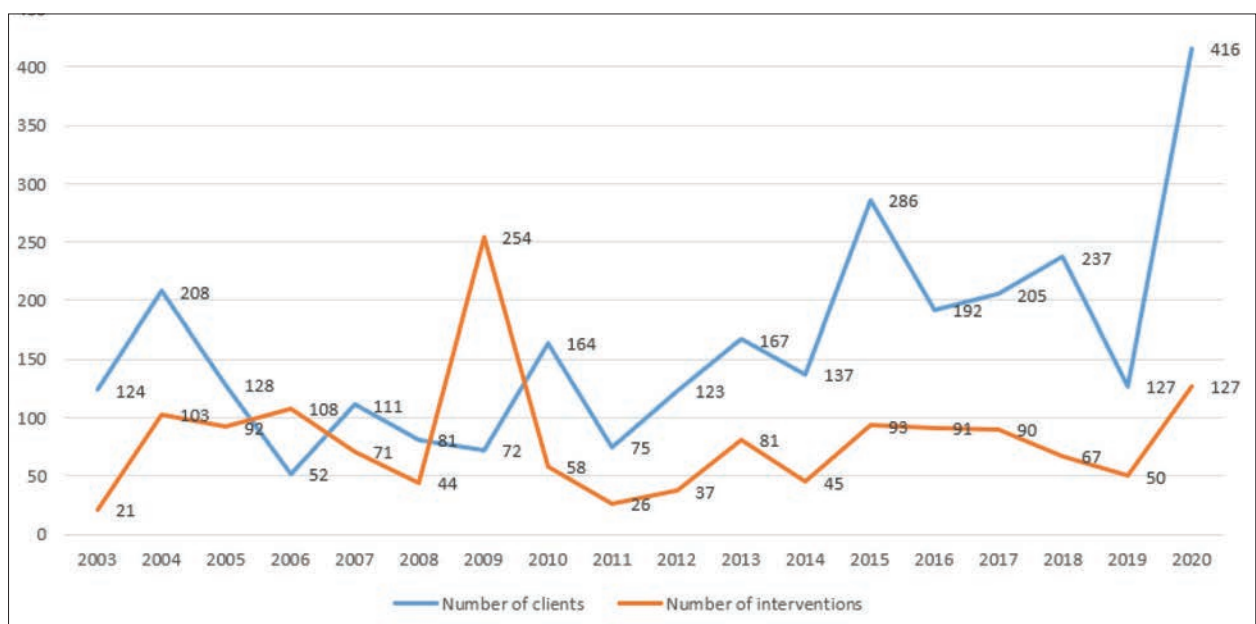


Fig. 2. Posttraumatic care in the FRB of the CR provided by a psychologist [4]

Figure 2 shows the statistics of post-traumatic intervention care provided by some of the psychologists of the FRB of the CR to affected persons between 2003 and 2020.

Within the Police of the CR, post-traumatic intervention care was regulated by the binding instruction of the Police President No. 21/2009. The methodological management of post-traumatic care was under the responsibility of the Chief Psychologist of the Police of the CR. He selected and subsequently approved the coordinators of individual post-traumatic intervention care teams. At the same time, he was the guarantor of the ethical and professional quality of this system. The psychology department of the Ministry of the Interior of the CR (specifically the psychology department of the Personnel Department of the Ministry of the Interior of the CR) provides training for crisis interventionists and participates with the chief psychologist of the Police of the CR in the conception and development of this system. Since 2016, the post-traumatic intervention care teams have been gradually replaced by the Collegial Support System.

The psychological assistance provided by the Ministry of the Interior of the CR is also based, among other things, on the following pillars: the System of Assistance to Victims of Crime and Emergencies and the Crisis Helpline. Within the Police of the CR, officers and employees can use the following post-traumatic care options: the services of a police psychologist, crisis intervention, collegial support and the Anonymous Crisis Helpline.

Figures 3 and 4 below show statistics on psychological care provided to members of the Police of the CR between 2015 and 2020. Figure 3 shows in more detail the breakdown of psychological services into the following subcategories: counselling and consultation, psychotherapy, crisis intervention and sociometry. Figure 4 then shows the individual reasons for seeking psychological help by members of the Police of the CR.

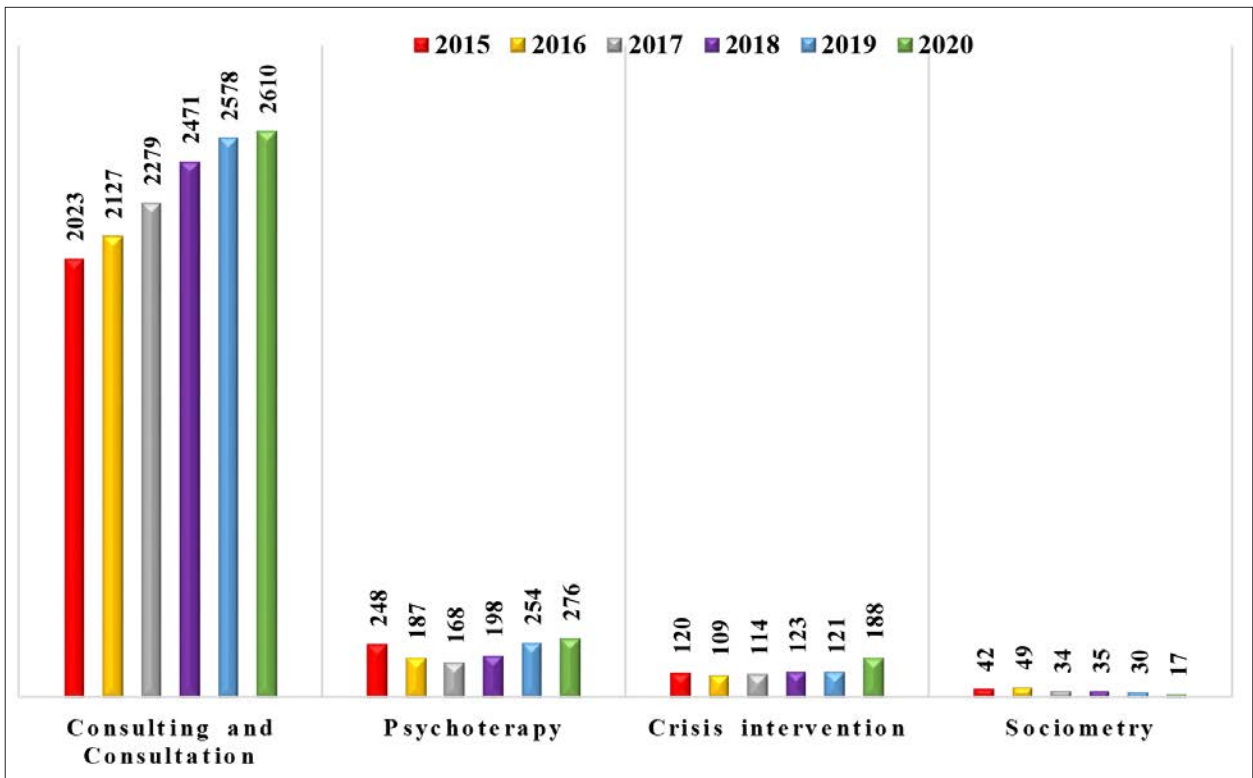


Fig. 3. Psychological care for members of the Police of the CR in 2015 - 2020 [5]

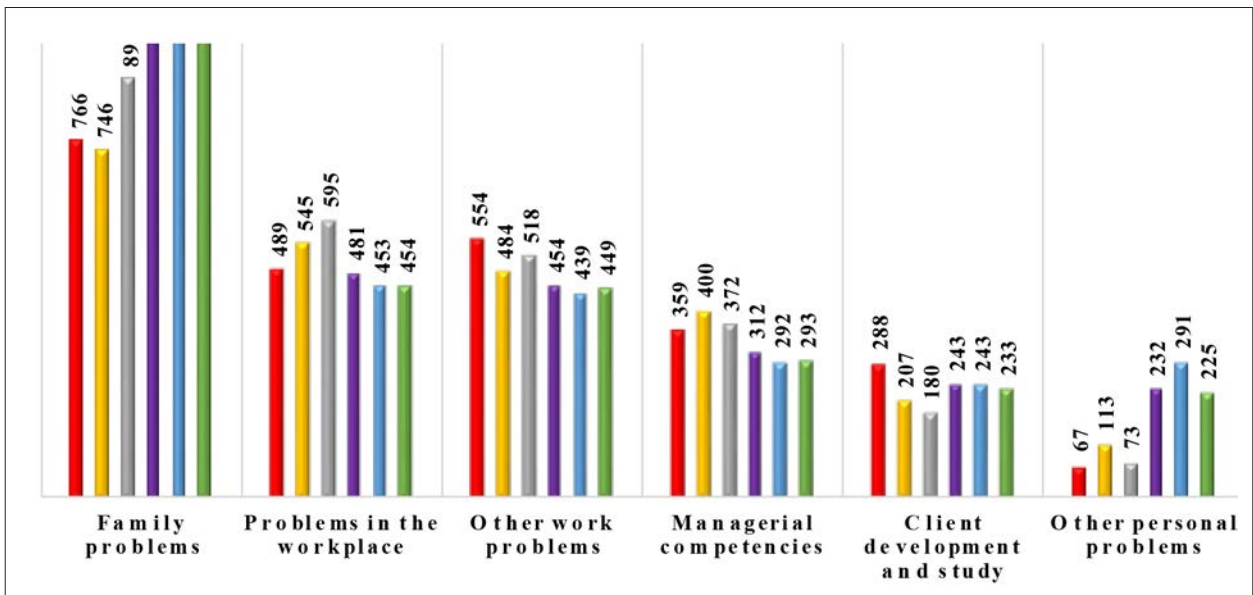


Fig. 4. Psychological care for members of the Police of the Czech Republic by issue in 2015 - 2020 [5]

By Binding Instruction No. 231/2016 of the President of the Police on psychological services, a system of collegial support was established in which so-called peers operate. Within the framework of the collegial support, peers provide psychological support to police officers and employees of the Police of the CR, or even to their relatives, who are in a difficult and psychologically challenging life situation. This support is provided in the form of a conversation, sharing experiences, providing necessary information (e.g. about appropriate further procedures, institutions providing professional psychological assistance, etc.). The aim of peer support is to prevent the development of psychological difficulties and also to extend psychological support [6].

As part of the psychological support for members of the IRS (including their loved ones), the anonymous Crisis Helpline is used to provide expert psychological assistance around the clock. It is also possible to use the Skype communication program to contact the “linkapomoci”.

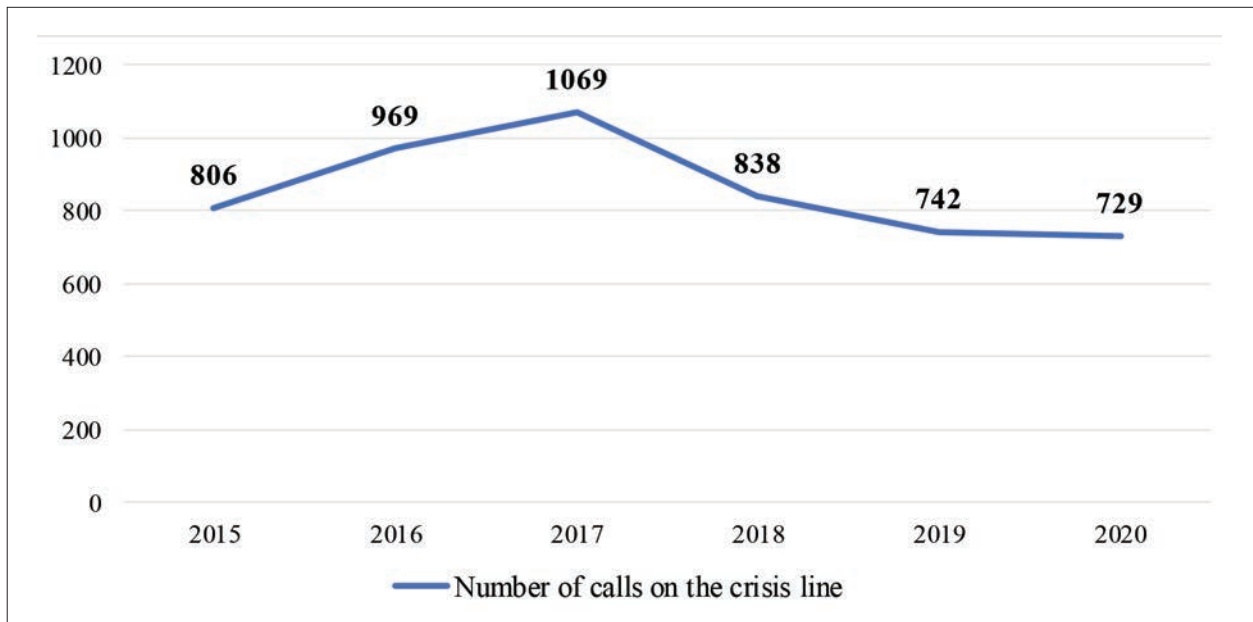


Fig. 5. Number of contacts on the crisis helpline 2015 - 2020 [5]

Since 2012, the System of Psychosocial Intervention Service has been gradually built at the Health Emergency Service, which is enshrined in Act No.374/2011 Coll., on the Emergency Medical Service. Individual crisis techniques are used to support health care workers who are at risk of acute stress reaction, post-traumatic stress disorder, etc. Attention is also paid to the systematic and continuous training of its individual members, i.e. interventionists, who provide PEER support not only to victims of emergencies and crisis situations but to colleagues within the organisation.

On the basis of our experience in the training of employees and members of the IRS, we conclude that it is important to include Critical Incident Stress Management (CISM) in their lifelong learning process. Crisis intervention techniques (demobilization, defusing, debriefing) are an integral part of CISM to help the individual cope and process the trauma or traumatic event. This enables the individual to return to their previous normal way of life and also reduces the likelihood of their psychological disturbance. We justify our opinion by the fact that it is the officers and members of the IRS who, at the scene of an emergency and crisis situation, provide first psychological assistance to the victims, but also to their colleagues [7].

4. Description of the research investigation

The primary method of research included a literature search and document analysis. We focused on the possibilities of providing crisis intervention and post-traumatic care in the basic components of the IRS. The aim was to map the current state and legislative framework of the issue. Another research method we used was a retrospective observational study, through which we analyzed data related to the frequency of use of individual methods of professional help (e.g., consultation with a psychologist, crisis intervention, peer support, Anonymous Crisis Line, etc.), including the possibility of using follow-up professional care. An integral part of the research was the implementation of an anonymous non-standardized questionnaire survey, where the criterion for selecting respondents was employment in the basic components of the IRS. The attention was focused on determining the utility of post-traumatic care by respondents, including their views on the trust and effectiveness of this professional help. Subsequently, the results of the statistical analysis of the data obtained and the interpretation of the results are presented, including their comparison with the results of other authors who have conducted research on posttraumatic care.

Thus a quantitative research method has been chosen was chosen, through a non-standardized anonymous questionnaire survey. An anonymous non-standardized questionnaire of own design was used. An introductory briefing was placed at the beginning of the questionnaire to inform the respondents about the reason for conducting the research survey as well as the anonymity of the results obtained through the questionnaire.

The only criterion for the selection of respondents was the service relationship with the FRB of the CR, the Police of the CR and the employment relationship with the MES. Respondents were not limited by gender, age or length of experience in the basic components of the IRS. The questionnaire was distributed to the respondents in electronic form. In total, 277 respondents from among the members and officers of the basic units of the IRS who

perform their profession in the territory of the capital city of Prague, the Central Bohemia and the Pilsen Region participated in the research survey. The representation of individual IRS units was as follows: 91 (32.9 %) respondents from the FRB of the CR, 85 (30.7 %) respondents from the Police of the CR and 101 (36.5 %) respondents from the EMS.

5. Results

The first aim of the research was to find out which of the crisis situations offered was considered by the respondents to be highly traumatic. An analysis of the obtained results is presented in Figure 6.

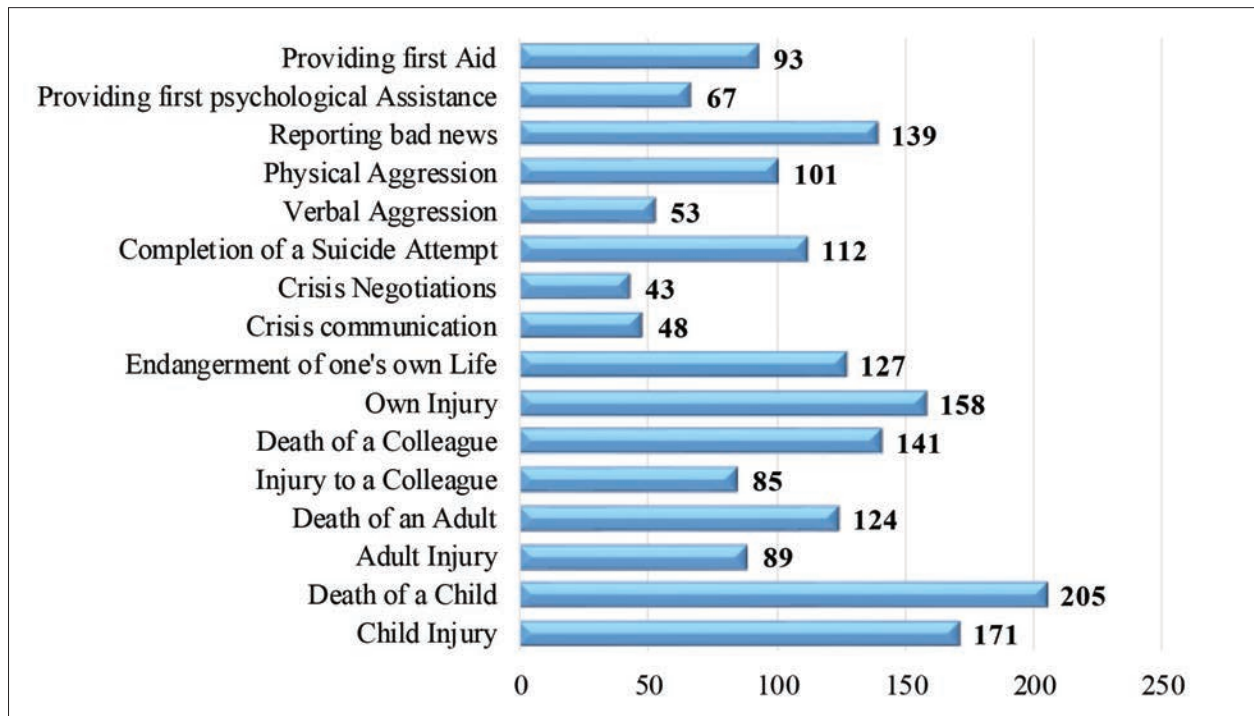


Fig. 6. Assessment of the level of traumatization in individual crisis situations [source: own]

Respondents consider the following three crisis situations to be the most traumatic:

- death of a child (74 % of respondents);
- injury to a child (61.7 % of respondents);
- self-injury (57 % of respondents).

The second aim was to find out what types of post-trauma care, post-trauma intervention and psychosocial intervention care are available to respondents in their profession. The results obtained from each respondent are summarized in the graph in Figure 7.

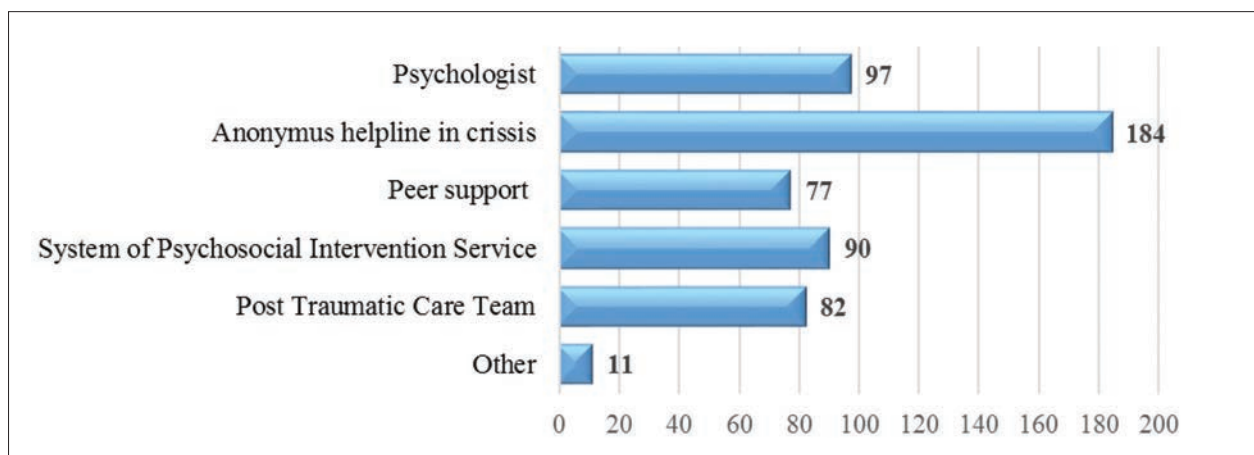


Fig. 7. Types of post-traumatic and psychosocial intervention care [source: own]

Based on the data analysis, it can be concluded that respondents have sufficient access to professional help to cope with the negative impact of traumatic events on their psyche. On the other hand, by analyzing the results of the question whether they have ever used the offered help, we found the following data:

- 44 (15.9 %) of respondents used professional help from their IRS unit;
- 30 (10.8 %) of respondents used professional help from outside their IRS unit;
- 101 (36.5 %) of respondents did not need professional help;
- 79 (28.5 %) of respondents did not use professional help due to lack of trust to preserve anonymity;
- 23 (8.3 %) of respondents did not want to give an answer.

The third aim was to find out how the respondents (in their subjective opinion) are prepared to provide psychological first aid to the affected persons. The results obtained from each respondent are summarized in the graph in Figure 8.

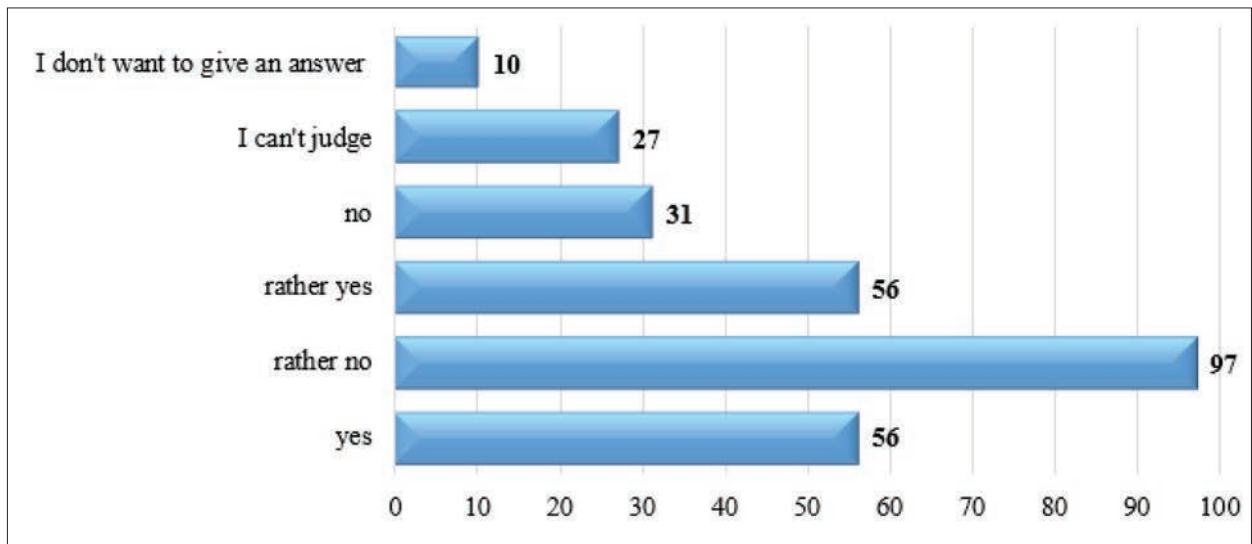


Fig. 8. Readiness of respondents in the area of psychological first aid [source: own]

After summing up the answer options yes and rather yes, it can be stated that 143 (51.6 %) respondents are (according to their subjective opinion) ready to provide first psychological help to the affected persons.

Part of the third objective was also to find out how the respondents (in their subjective opinion) are prepared to implement crisis communication with victims of emergencies or with survivors of victims. The results obtained from each respondent are summarized in the graph in Figure 9.

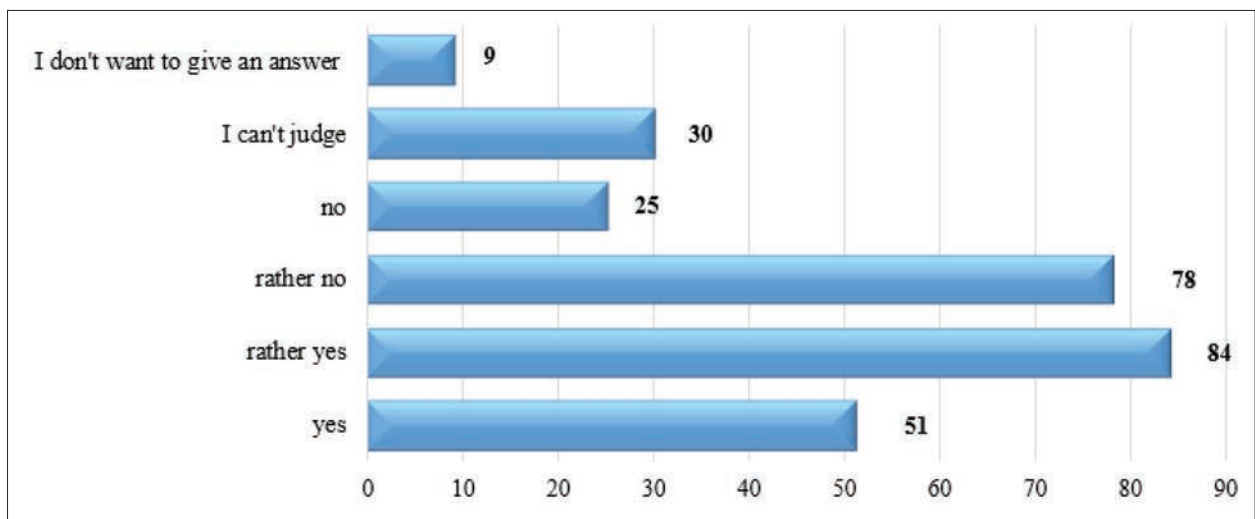


Fig. 9. Readiness of respondents in the area of crisis communication [source: own]

After summing up the answer options yes and rather yes, it can be stated that 135 (48.7 %) respondents are ready to implement crisis communication with victims of emergencies or survivors of victims.

6. Evaluation of the research questions

Two research questions were formulated as part of the research investigation. Their evaluation is presented below.

Research Question 1: *Do respondents experience any effects on their psychological state because of the traumatic events they have experienced?*

Overall, the effects of traumatic events on the psychological state of the respondents are found in 55.2 % of respondents. A more detailed analysis of the results is presented in table 1.

Table 1

Prevalence of the effects of traumatic events on the psychological state of respondents [source: own]

<i>Are you experiencing any effects on your psychological state as a result of the traumatic events you have experienced?</i>		
answer option	n_i	f_i
yes often	24	8.7 %
yes, but only occasionally	129	46.6 %
no	109	39.4 %
I don't want to give an answer	15	5.4 %

Research Question 2: *Which areas of post-trauma education, post-trauma intervention care and psychosocial intervention care should receive more attention, or which topics could be expanded?*

Based on the analysis of the results obtained, it was found that respondents would most often expand the current system of education in post-trauma care, post-trauma intervention care and psychosocial intervention care in the following areas:

- Psychological First Aid (52.3 % of respondents);
- Crisis Intervention (41.2 % of respondents);
- Crisis Communication (44.8 % of respondents);
- Crisis Negotiation (33.2 % of respondents);
- Breaking Bad News (47.7 % of respondents);
- Coping Strategies (35.4 % of respondents);
- and the last response option: working with emotions and experiences (14.1 % of respondents).

7. Discussion

In the theoretical part of the submitted contribution, the consequences of the negative impact of crisis situations and extraordinary events on the affected persons were described, including the impact on the intervening members and members of the IRS.

It also described the post-traumatic care available to individual members and officers of the IRS in the CR. In the practical part, the results of a research investigation involving 277 members and officers of the IRS are published.

It was investigated how often the individual respondents in the course of their work get into a situation that can (in their subjective opinion) be described as traumatic. The sum of the individual affirmative answers gives the following result:

- 258 (93.1 %) respondents encounter a traumatic event (with varying degrees of frequency) in the course of their occupation;
- in contrast, 16 (5.8 %) respondents had never encountered a traumatic event in the course of their occupation;
- and 3 (1.1 %) respondents did not want to give an answer.

It was also investigated whether experiencing a traumatic event has an impact on the psychological state of the respondents. The sum of the individual positive responses, the result is that 153 (55.2 %) of the respondents subsequently show symptoms of the impact of the traumatic events on their psyche. As stated by the authors Praško, Hájek, Prašková trauma hurts. The injury can be physical, but also emotional. Emotional trauma can be far more painful than physical trauma and can also take longer and harder to heal. Left untreated, it can also hurt for life. Trauma occurs as a result of an event beyond normal human experience and can be simplistically imagined as a psychological injury [8].

Due to the negative impact of previously experienced trauma, it is necessary to assume the risk of developing a psychological distress syndrome (threat to the psychological and somatic unity of the traumatized individual). As a consequence, the individual loses the ability to adequately grasp and effectively process psychological experiences. His or her overall anchoring is also compromised. According to the authors Lepore, Rovenson [9], we distinguish the following variants of the individual's resistance to the influence of traumatic events: healing (e.g., after the negative effects of the trauma or the experienced traumatic event are over, the individual is able to eliminate and completely remove their negative consequences), resistance (e.g. specific way of internal processing of the negative impact of the trauma or traumatic event, in which the negative impact of the event on the individual's behaviour and actions cannot be observed), reconfiguration (e.g. as a result of the negative impact of the trauma or traumatic event, a permanent or temporary change in the personality of the previously traumatised individual may occur, in which feelings of hopelessness or threat may emerge).

Based on an analysis of their research, Bartlett et al [10] report the alarming fact that there is an increased rate of completed suicide attempts among firefighters, as well as a high incidence of PTSD diagnosis. And although there is evidence of a risk of suicidal tendencies among firefighters worldwide, the authors point out that there is still a lack of information on the psychological factors associated with this negative problem. In this context, author Berger [11] states that in cases where PTSD has already developed, there is a long and difficult period for the affected individual to develop appropriate defence mechanisms through coping strategies and rebuild.

Based on the above-mentioned facts, we agree with the assertion of the authors Lawrence and Tedeshi who emphasize the promotion of posttraumatic growth in the individual. Posttraumatic growth is closely related to the trauma or traumatic event experienced. It can generally be characterized as some form of positive change in the cognitive, emotional, and educational domains of the previously traumatized individual. Post-traumatic growth can be seen as the result of an individual's struggle with a life crisis or traumatic event that is important to them and has fundamentally affected their life functioning. Development can be seen as a change in which a previously traumatized individual achieves a higher level of adaptation, psychological functioning, and conception of his or her own life. The legacy of trauma includes loss (e.g. loss of illusions and expectations, failure to meet individual specific needs, set goals, etc.) but also the possibility of gain (e.g. restoration of self-empowerment, the possibility of influencing the functioning of the individual in the future, etc.). The previously traumatized individual may focus inwardly on both [12].

Based on our experience from practice, we conclude that a significant role in relation to the emotions experienced by paramedics when providing first aid is the frequent occurrence of the following two phenomena: unethical behavior at the scene of an emergency (in the sense of taking photographs or making videos of human suffering with subsequent posting on social networks) and the bystander effect. The bystander effect describes situations where people are less likely to help another person if another person is in their presence. It can also be thought of as meaning that the likelihood that an individual will provide assistance and/or help a person in need decreases sharply in direct proportion to the number of people who are bystanders to the situation. On the basis of practical experience, we also note that officers and members of the IRS who intervene in crisis situations and emergencies subsequently develop doubts about the correctness and speed of the decision, incorrect or insufficient performance, that their imperfection causes the death of the person affected, etc. These emotionally intense experiences may escalate, particularly when the death of the person affected or serious complications due to serious injury occur. But also, when they are unable to grasp and process the experience of the intervention.

The information on which areas within the preparation for coping with traumatic events need to be expanded (according to the subjective opinion of the respondents) in the current system of education in the field of providing post-traumatic care, post-traumatic intervention care and psychosocial intervention care or to pay more attention to them in the process of lifelong learning can be considered valuable. An analysis of the overall results shows that the top three most frequent areas were: psychological first aid (145 - 52.3 % of respondents), breaking bad news (132 - 47.7 % of respondents) and crisis communication (124 - 44.8 % of respondents).

A positive aspect, related to the above views of practitioners, was the finding that respondents have access to professional help through which, they can manage the impact of traumatic events on their psyche. Even though post-traumatic care is offered to respondents to a sufficient extent, 44 (15.9 %) respondents used professional help at their IZS unit and 30 (10.8 %) respondents used professional help outside their IZS unit. Due to a lack of trust in anonymity, 79 (28.5 %) respondents did not use professional help. This result is in conflict with the results of the author Karbanova, who in the results of her research, following the survey of the reasons for not using the offered post-traumatic care, states that the most mentioned barrier was the fear of losing a job. Respondents agreed across their accounts that there is a consistent belief amongst police that having a problem in terms of a more challenging period in life, losing a loved one, experiencing a traumatic event, means being labelled as having a serious psychological problem, seeing a psychologist, subsequent psychological fitness review and possible dismissal. This is related both to distrust of psychologists and of the providers themselves. Fear and mistrust go hand in hand with the prevailing myth

of the indomitable police officer who has no problems, let alone personal ones, and to show or admit them would be a sign of weakness [13].

The idea to implement collegial support in the conditions of the Police of the CR was based on the knowledge that a certain barrier can arise between a police officer and a psychologist. This may also give rise to certain concerns. Whereas in the case of collegial support it is a counselling conversation with a colleague who experiences the same experiences and emotions as the affected person and is professionally trained to deal with these situations.

8. Conclusion

The main objective of this paper was a comprehensive analysis of the post-traumatic care system in the basic components of the IRS. It is a relatively new system abroad and in the Czech Republic, which is constantly evolving in response to the variability of changing traumatic events in relation to the performance of the profession (e.g. the COVID 19 pandemic, the military conflict in Ukraine, etc.). The theoretical part focused on defining key concepts related to the issues of traumatization, response to severe stress, post-traumatic stress disorder, adjustment disorders, etc. The research part presents the results of the analysis of the current situation, the results of the questionnaire survey and the comparison of the results.

The paper provides an insight into the complex issue of providing post-traumatic care, post-traumatic intervention care as well as psychosocial intervention care to members of the IRS. Attention was also paid to the possibilities of using the offered professional care in the basic components of the IRS.

Through the implementation of a non-standardized anonymous questionnaire survey, which was carried out among members and officers of the basic components of the IRS, the incidence of traumatic events during the performance of the profession and their subsequent impact on the psychological state of the respondents was determined. The attitude of the respondents towards the professional help offered was also examined.

Based on the analysis of the results, we recommend continuing to raise awareness of post-traumatic and psychosocial care provided by the individual components of the IRS. Along with awareness, the credibility of the provision of specialist care should also be raised so that members and members of the IRS are not afraid to use this type of assistance.

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