
The Trauma and Coping in Homicide and Sexual Offences and Juvenile Crime Criminal Investigators

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Purpose:

The study aims to contribute to research on trauma among police officers. The paper presents selected results of a larger study about trauma and coping among two specific police groups: criminal investigators from the Homicide and Sexual Offences (HSO) section as well as the Juvenile Crime (JC) section. Findings for each group are presented and differences analysed.

Design/Methods/Approach:

All 56 criminal investigators from HSO and JC sections within the Republic of Slovenia were asked to participate. The response rate was high: 92.59% ($n = 25$) for the HSO and 82.14% ($n = 23$) for the JC groups. The participants signed an informed consent and completed the questionnaires in a group setting in work hours. They were later given information about the individual results if they wished.

Findings:

The results for both groups show a low level of posttraumatic symptomatology that is linked to specific, mostly avoidance coping mechanisms. Specific work situations related to higher posttraumatic symptoms were identified for each participant group.

Research Limitations/Implications:

While the response rate was high, the small size of the two groups limits possibilities of statistical analysis, especially since the data are mainly not normally distributed.

Practical Implication:

A cross-sectional assessment of potential posttraumatic symptomatology can suggest preventive and possibly curative programmes for criminal investigators able to improve and contribute to more effective police work.

Originality/Value:

This is the first study in Slovenia to address the narrow field of trauma and coping among specific police groups.

UDC: 159.9:351.74/.76

Keywords: police work, psychology, trauma, coping, criminal investigators

Travma in strategije spoprijemanja pri kriminalistih z Oddelka za krvne in seksualne delikte ter Oddelka za mladoletniško kriminaliteto

Namen prispevka:

Namen prispevka je razširitev raziskovalnega polja travme pri policistih. Prispevek predstavlja rezultate širše raziskave o travmi in spoprijemanju s problemskimi situacijami pri dveh specifičnih skupinah kriminalistov: z Oddelka za krvne in seksualne delikte (KSD) in Oddelka za mladoletniško kriminaliteto (MK). Predstavljene so ugotovitve za obe skupini. Kjer je bilo mogoče, so bile analizirane tudi morebitne razlike med njima.

Metode:

K sodelovanju je bilo povabljenih vseh 56 kriminalistov z oddelkov za KSD in MK v RS. Odzivnost je bila visoka: 92,59 % ($n = 25$) za KSD in 82,14 % ($n = 23$) za MK. Sodelujoči so podpisali informirano soglasje in vprašalnike izpolnili med delovnim časom. Kasneje so lahko na željo prejeli individualno povratno informacijo o rezultatih.

Ugotovitve:

Rezultati kažejo nizko posttravmatsko simptomatiko, ki se veže predvsem na izogibajoče strategije spoprijemanja. Ugotovljene so bile specifične delovne situacije, vezane na višji posttravmatski stres.

Omejitve/uporabnost raziskave:

Kljub visoki odzivnosti udeležencev sta obe skupini majhni, kar omejuje možnosti statistične analize. Obenem kompleksnejše analize tudi niso možne, ker se večina podatkov ne porazdeljuje normalno.

Praktična uporabnost:

Prečna ocena posttravmatske simptomatike da smernice za preventivne in morda kurativne programe za kriminaliste, kar lahko koristi in doprinese k učinkovitejšemu delu policije.

Izvirnost/pomembnost prispevka:

Gre za prvo slovensko raziskavo na ozkem področju travme in strategij spoprijemanja v specifičnih policijskih skupinah.

UDK: 159.9:351.74/.76

Ključne besede: policijsko delo, psihologija, travma, strategije spoprijemanja, kriminalisti

1 INTRODUCTION

Regular exposure to traumatic events with either a lower or higher impact can gradually weaken an individual's adaptive abilities and ultimately be reflected in

their subjective, interpersonal and professional life. Stress-related problems can become chronic and affect a person's functioning in key life roles.

Psychological reactions to traumatic experiences are subjective and in extreme cases can lead to anxiety, mood swings, substance abuse or eating disorders (Gros et al., 2006; Marmar et al., 2006; Yehuda, 1998). However, the most common reaction is Post-Traumatic Stress Disorder (PTSD; American Psychiatric Association [APA], 2013), characterised by four clusters of symptoms: intrusion (e.g. reliving the trauma over and over), avoidance of stimuli related to the trauma (e.g. avoiding trauma-related thoughts), negative alterations in cognitions and mood (e.g. inability to recall key features of the traumatic event) and alterations in arousal and reactivity (e.g. concentration problems, angry outbursts). It is important to add that exposure to a single traumatic event usually does not lead to PTSD (Kaltman & Bonanno, 2003; Mancini & Bonanno, 2006).

2 POLICE WORK AND TRAUMA

Police work clearly exposes law enforcement officers to a range of traumatic events and their consequences to a much greater extent in comparison to the general population (Edelmann, 2010), making posttraumatic symptomatology among police officers no surprise (Ballenger et al., 2010; Stephens & Long, 2000; van Patten & Burke, 2001). In fact, many studies show a higher prevalence of PTSD and depression among police personnel (Darensburg et al., 2006; Maia et al., 2007; Perez, Jones, Englert, & Sachau, 2010). Yet, other studies show the opposite – a low or average rate of PTSD (Marchand, Nadeau, Beaulieu-Prévost, Boyer, & Martin, 2015). The discrepancy might be due to various factors. One is certainly the participant police population, the nature of whose traumatic exposures can vary greatly. In addition, the instruments used for assessing PTSD may differ in sensitivity given that posttraumatic symptomatology sometimes does not cover all the diagnostic criteria for PTSD, but is nevertheless clinically significant (Ozer & Weiss, 2004). Maia et al. (2007) used the term *partial PTSD*, with their study showing that the occurrence of PTSD (8.9%) and partial PTSD (16%) was higher among police officers than in the general population. Van Patten and Burke (2001) noticed similar characteristics in a special police unit of homicide investigators: posttraumatic symptomatology was more pronounced than in the general population, but not to such a level that would significantly impair their functioning. Marshall (2006) warns against such unrecognised symptoms since they can slowly debilitate a police officer's psychological and emotional well-being through accumulated traumatic exposures. Namely, subsyndromal PTSD is linked to various comorbid psychiatric disorders, functional difficulties and somatic symptoms (Pietrzak et al. 2012).

Even though police officers are at a greater risk for traumatic exposure than the general population, studies show they are quite resilient to stress, possibly because of the selection criteria and trainings that facilitate their resilience (Marchand et al., 2015). On the other hand, an inclination to underreporting traumatic symptoms should not be disregarded as a possibility given the police culture discourages individuals from being vulnerable (Marchand et al., 2015),

and underreporting may be an effort to appear resilient (McCaslin et al., 2006). After all, an officer whose psychological functioning is compromised should not carry a firearm (Perrin et al., 2007). Moreover, a strong work commitment can limit a person's recognition and awareness of changes and impairment they are experiencing caused by traumatic stress (Bourke & Craun, 2014).

Even though posttraumatic symptomatology in police officers is the main interest of our study, traumatic experience in police work can also lead to other issues that should be mentioned. They include, for instance, low work effectiveness, higher accident frequency, marital problems, suicide, alcohol and substance abuse, family violence, ulcer and other digestive disorders and respiratory disorders (Marshall, 2006; Waters & Ussery, 2007), nausea, mood swings, sleep disorders, and cardio-vascular diseases (McCarthy, Zhao, & Garland, 2007).

3 TRAUMATIC EVENTS IN POLICE WORK

The most distressing critical incidents for officers involve duty-related life threats and violence (McCaslin et al., 2006). A study of specific police work situations with the greatest traumatic impact highlighted the following (Karlsson & Christianson, 2003): armed threats, traffic accidents, murders, threats, accidents, investigations, suicides, notifications, and taking children into custody. In a similar study, Brown, Fielding and Grover (1999) found three traumatic factors in operative stressors: 1) deaths and catastrophes; 2) routine police work; and 3) sexual crimes. The authors conclude that the first group occurs rarely, but has a strong impact, the second group is common and has low traumatic potential, while group three is relatively frequent with a mid-level impact. It is important to again stress that traumatic stress reactions may also occur after a long-lasting exposure to stressful situations that do not necessarily carry high potential for trauma (Herman, 1992).

A relevant characteristic of traumatic events for police officers is the age and role of the victim (Ferguson, 2004). When dealing with helpless children as victims of abuse and exploitation, police officers can become most profoundly affected (Marshall, 2006; van Patten & Burke, 2001). In addition, the traumatic nature of police tasks is more prominent if the police officer is new to the job and when they can identify with the victim or the victim's loved ones, when the offender acts 'nice' and 'normally' while he or she is the suspect of child abuse, and when crime scenes are especially gruesome (Ferguson, 2004). The finding that junior officers suffer more stress than their seniors was also found in a study by Husain (2014) in which newer police officers showed higher depression and anxiety levels.

Another traumatic element found in professions like police work is the *anticipation* of a possible traumatic exposure (van der Kolk, van der Hart, & Marmar, 1996). Generally speaking, this anticipatory stage of trauma leads to PTSD symptoms and difficult decision-making even in clear situations, although this has yet to be researched in the law enforcement field (Papazoglou, 2013).

4 COPING STRATEGIES AND PROTECTIVE FACTORS

The consequences of trauma not only relate to the nature of the event, but more importantly to the way the individual/police officer experiences and reacts to it. Risk factors (e.g. peritraumatic distress and perception of threat) inhibit while protective factors (e.g. social support and high self-esteem) facilitate working through a traumatic experience. These factors are more important than the frequency and intensity of the exposure when distinguishing resilient police officers from non-resilient ones (Prati & Pietrantonio, 2010). *Resilience* is a system's adaptation to hazards for the purpose of achieving and maintaining an acceptable level of functioning (Lanius, as cited in Wilkinson, 2010).

Coping strategies form a significant part of resilience. Based on research, Stanton and Franz (1999) distinguish the *approach* and *avoidance* coping strategies. *Avoidance-coping strategies* involve conscious attempts to withdraw from the source of stress while *approach-coping strategies* enable individuals to exploit those changes of the stressful situation that provide greater control (Anshel, 2000). Even though there is a strong tendency to use either approach- or avoidance-coping strategies, the use of the two strategies is not mutually exclusive (Roth & Cohen, 1986) and is determined by personality and situational characteristics (Wearing & Hart, 1996). In difficult-to-control situations and when the solution can be short term, avoidance-coping methods may be beneficial, while the opposite applies to approach-coping methods (Roth & Cohen, 1986). However, empirical studies show a correlation between avoidance-coping strategies and a more prominent posttraumatic symptomatology (Gershon, Barocas, Canton, Li, & Vlahov, 2009; Haisch & Meyers, 2004; Krause, Kaltman, Goodman, & Dutton, 2008; Ménard & Arter, 2013; Pacella et al., 2011; Pasillas, Follette, & Perumean-Chaney, 2006).

In the context of police work, we can recognise avoidance-coping strategies in police officers' strict reliance on police work and emotional blocking (Koch, 2010) that allows police officers to approach a situation in a logical way and maintain an objective perspective on their work (Henry, 1995). One study shows that specific strategies for coping with such events are developed through work experience (Garcia, Nesbary, & Gu, 2004), trainings and emotional preparedness. Therefore, older police officers use avoidance strategies less often (Marmar, Weiss, Metzler, & Delucchi, 1996).

A summary of the many studies in this field suggests a police officer's reaction not only depends on the traumatic situation itself, but also on their coping strategies and support that is available to work through the experience. Social support plays a protective role – support from one's family, friends, colleagues and supervisors (Bourke & Craun, 2014). Yet this kind of support is not always directly brought into play for work-related stress. A study showed that social support in highly stressful (work) situations can even intensify stress – as if by avoiding talking about it, a police officer protects his/her own support system (Hyman, 2004).

Organisational support especially from the leadership is important in police work, especially those experiencing posttraumatic symptomatology (Violanti et al., 2015). In fact, officers who do not discuss their traumatic experience show

greater psychological distress and traumatic stress (Davidson & Moos, 2008). Another important protective factor should be mentioned: recognition of the importance of police work. Where the efforts of the police go unrecognised and without public support, the psychological distress might increase (Perrin et al., 2007) as the exposure to the traumatic events becomes even more difficult to make sense of (Henry, 2004).

5 AIM AND PURPOSE OF THE STUDY

In Slovenia, studies about trauma and coping in law enforcement are scarce. More than two decades ago, a few similar studies were carried out (Selič, 1994; Selič & Umek, 1994), but their main purpose was to determine organisational stressors and job satisfaction. These concepts are close, yet quite different from the topic of traumatic stress. The latter has only recently been studied more closely on a specific group of police officers – crime scene investigators. The results show that the prevalence of posttraumatic stress disorder among Slovenian crime scene investigators is more frequent than in the general population, and that stress arises not only due to organisational factors like shift work, but operational factors as well (Pavšič Mrevlje, 2013). This group of police officers mainly uses avoidance-coping strategies that are often related to physical health problems, while approach strategies are used if officers are familiar with the nature of the task, have time to prepare for it, and feel that past situations have been resolved positively (Pavšič Mrevlje, 2016).

The study presented in this paper intends to expand the research field concerning trauma among police officers. The paper shows some of the results of a larger study that included two specific police groups: criminal investigators from the Homicide and Sexual Offences (HSO) section and Juvenile Crime (JC) section. These two groups of investigators were chosen because they regularly deal with work situations that entail the possibility of a traumatic impact; the HSO group mostly with murder and suicide cases, physical and sexual violence, while the JC group with child abuse, child sexual abuse and family violence.

6 METHOD

6.1 Participants

All 56 criminal investigators from HCO ($N = 27$) and JC ($N = 28$) sections in Slovenia were asked to participate in the research. Some were unable to participate due to work absence or sick leave, a few did not wish to participate, but the overall response rate was high: 93% for HSO and 82% for JC. The final sample is presented in Table 1. The average age of the two groups is slightly above 43 years, and both groups' average years of service slightly exceed 8. The differences are not statistically significant. One of the participants is single, and all have children.

	Male		Female		Sum		Age		Years of service as criminal investigator	
Section	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
HSO	21	91	4	100	25	93	43.16	7.11	8.15	4.98
JC	13	93	10	77	23	82	43.22	6.06	8.40	6.14

Table 1:
Demographic
data for the two
groups

6.2 Instruments

The *Coping Responses Inventory (CRI) questionnaire* (Moos, 1993) measures individuals' cognitive and behavioural responses to a stressful situation. It measures eight strategies: two cognitive (logical analysis, positive reappraisal) and two behavioural *approach strategies* (seeking guidance and support, problem solving), and two cognitive (cognitive avoidance, acceptance or resignation) and two behavioural *avoidance strategies* (seeking alternative rewards, emotional discharge). Each coping item is rated on a 4-point Likert scale. To ensure an adequate comparison of raw data, these need to be converted into standardised T-scores. The following interpretation of results is applied (Moos, 1993): T-scores between 46 and 54 are average, between 55 and 59 somewhat above average, between 60 and 65 well above average and over 66 considerably above average. T-scores between 41 and 45 are somewhat below average, between 35 and 40 well below average, and under 34 considerably below average.

The *Detailed Assessment of Posttraumatic Stress (DAPS) questionnaire* measures individuals' symptomatic responses to a traumatic event, dissociative conditions, proneness to suicide and substance abuse (Briere, 2001). To adequately compare data to clinically relevant measures, raw results need to be converted into standardised T-scores and are interpreted as follows: T-scores between 60 and 65 show elevated traumatic stress that may or may not be clinically meaningful, while T-scores above 65 are always clinically meaningful (Briere, 2001). For the purpose of this paper, only the main scale *posttraumatic stress* (showing the total posttraumatic symptomatology; PTS-T) was included.

For this research, a list of work situations was created – including specifics for each participant group. Each situation required an appraisal of the *frequency of occurrence* and *emotional burdening* of each situation on a 6-point Likert scale.

6.3 Procedure

The research was approved by the General Police Directorate within the Ministry of the Interior of the Republic of Slovenia.

Visits to each Police Directorate were individually arranged. The study's aim was presented to the criminal officers present and they were later invited to participate. There were no consequences for officers choosing not to participate, as taking part in the study was voluntary. Those deciding to participate signed an informed consent form. They filled in their questionnaires in a group setting in work hours. Participants subsequently received information about their

individual results if they wished. Feedback and the possibility of consultation were provided individually. The data collection started in spring 2014 and last feedbacks were given in spring 2017.

Data were analysed using IBM SPSS Statistics for Windows, version 24 (IBM Corp., Armonk, N.Y.).

7 RESULTS

7.1 Traumatic Symptomatology

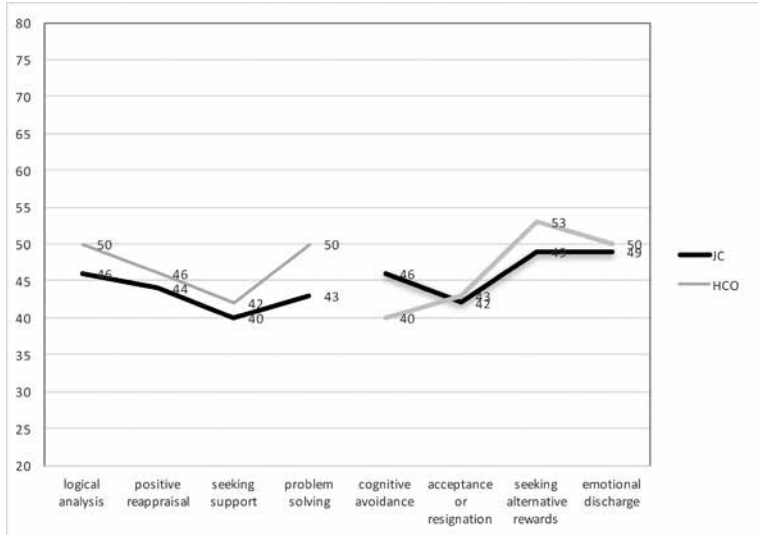
The DAPS questionnaire includes two validity scales (over-denying and overemphasising symptoms). After excluding participants with a negative validity scale, DAPS scores were calculated for 3 women and 16 men from the HSO section and 7 women and 11 men from the JC section. The T-score for the average result on the posttraumatic symptomatology scale for the HSO group is 52.05 and 55.83 for the JC group. Both are within the expected average range. A more detailed analysis shows one participant from the HSO group with a clinical PTST score, while the JC group includes 2 with mild and 3 participants with clinical posttraumatic symptomatology.

7.2 Coping Mechanisms

As seen in Figure 1, most scores for the coping strategies fall within the average range for both groups. A slightly below-average result in *seeking guidance and support* and *acceptance and resignation* is noted in the HSO and JC groups. The HCO group also has a somewhat below-average score in *cognitive avoidance*.

A statistically significant difference between groups was found only in *problem solving*, a strategy the JC group uses less frequently (Mann Whitney U test = 175; $p = 0.02$).

Figure 1:
T-scores
in coping
strategies scales
for HSO and JC
groups



An exploratory analysis was made for each group to look for any correlations between a coping strategy and posttraumatic symptomatology.

A moderate statistically significant correlation was found in the HSO group with *emotional discharge* (Spearman's $Rho = 0.45$; $p = 0.02$). In the JC group, a strong correlation was found in *seeking alternative rewards* (Spearman's $Rho = 0.63$; $p = 0.002$) and moderate correlations in *cognitive avoidance* (Spearman's $Rho = 0.52$; $p = 0.012$), *acceptance or resignation* (Spearman's $Rho = 0.43$; $p = 0.039$) and *seeking guidance and support* (Spearman's $Rho = 0.44$; $p = 0.037$).

7.3 Traumatic Work Situations

The correlations between posttraumatic symptomatology scale and specific work situations were analysed to define those working tasks that carry a potentially traumatic impact. The correlations for the HCO group are strongest with those situations requiring witnesses and people close to the victim to be interviewed (Table 2). On the other hand, the JC group mostly points out factors that are organisational (Table 3).

	Characteristic of the situation	Pearson's Rho	p
Interviewing the witnesses	intensity	0.68	0.000
Feeling responsible to solve the cases	frequency	0.66	0.001
Interviewing the parents of the victim	intensity	0.63	0.001
Working on-call	intensity	0.62	0.001
Uncooperative witnesses	intensity	0.62	0.001
Interviewing friends of the victim	intensity	0.59	0.002
Frequent strenuous and demanding contacts with people	intensity	0.59	0.002
Interviewing co-workers/school mates of the victim	intensity	0.58	0.002
Complaints and provocations at work	frequency	0.57	0.003
Meeting people in distress	frequency	0.56	0.004
Interviewing the partner of the victim	intensity	0.55	0.004
Lack of management care for criminal officers	frequency	0.54	0.005
Monotonous work	intensity	0.52	0.007
Frequent strenuous and demanding contacts with people	frequency	0.51	0.009

Table 2:
Strong and moderate correlations between posttraumatic stress and work situations for the HCO group

Table 3: Strong and moderate correlations between posttraumatic stress and work situations for the JC group

Work situation	Characteristic of the situation	Pearson's Rho	<i>p</i>
Monotonous work	intensity	0.61	0.002
Lack of rest	intensity	0.57	0.005
Lack of time for friends	intensity	0.54	0.008
Going to court as a witness	intensity	0.54	0.008
Physically demanding work	intensity	0.52	0.011
Public opinion about the police	intensity	0.52	0.011
Lack of management care for criminal officers	intensity	0.50	0.014

8 DISCUSSION

Posttraumatic symptomatology meeting the criteria for posttraumatic stress disorder (PTSD) develops through the complex inter-correlations between traumatic exposure, coping strategies, previous traumatic experiences and posttraumatic support. Some of these were assessed in this study by estimating the level of posttraumatic symptomatology, coping mechanisms, and identifying the most stressful work tasks in two sections of criminal investigators: Homicide and Sexual Offences (HSO) and Juvenile Crime (JC).

The results show that both groups are within the average range of posttraumatic symptomatology, although a closer look shows the JC group includes three investigators with clinical and two with mild posttraumatic symptomatology, while the HSO group has one investigator at the clinical level. At this point, considering the available data, the group difference may be attributed to their line of work – after all, working with child and minor victims brings the biggest emotional demands (Marshall, 2006; van Patten & Burke, 2001).

Generally, most of the participants reveal a good degree of resilience. This may be a consequence of a good (self)selection process that saw individuals with suitable personality characteristics being assigned to this job position. Further, training and experience is known to adjust a policemen's functioning and coping strategies (Marchand et al., 2015). We can infer that resilient officers cope quite well with the emotional demands of their work tasks and thus do not suffer from posttraumatic symptomatology. On the other hand, a low level of these symptoms might be the result of underreporting due to the need to be seen as less vulnerable (Marchand et al., 2015; McCaslin et al., 2006). The finding of their infrequent use of the coping strategy *seeking guidance and support* tells a similar story. Participants in both groups show a tendency to rely mostly on oneself and very rarely on others, which might also represent an effort to be seen as strong and resilient.

Another common characteristic regarding coping strategies shows that neither group can accept an emotionally difficult work situation as would be expected. A moment in working on a case is sometimes reached when nothing else can be done. However, the strong feelings of responsibility the investigators experience to solve cases might hinder their acceptance of this situation.

Members of the HSO and JC groups do not differ significantly in any of the coping strategies they use, except *problem solving*¹, an approach strategy the JC group uses less often. Moreover, although not significantly different, the JC group uses *cognitive avoidance* more often than the HSO group. As working on child abuse cases is emotionally one of the most overwhelming police tasks (Marshall, 2006; van Patten & Burke, 2001), and since it is not easy to organise good subsequent care for the (minor) victim, perhaps the JC investigators feel somewhat incapacitated and powerless with respect to taking more concrete and direct steps to address the situation (problem solving) and need to dissociate themselves more (cognitive avoidance).

The correlation between avoidance-coping strategies and a more prominent posttraumatic symptomatology has been proven many times (e.g., Gershon et al., 2009; Ménard & Arter, 2013; Pacella et al., 2011) and was also shown in the present study, especially in the JC group where three out of four avoidance strategies measured were found to be significantly linked to higher posttraumatic symptoms: *seeking alternative rewards*, *cognitive avoidance* and *acceptance or resignation*. A similar correlation was found in the HSO group, but for the *emotional discharge* mechanism only. It seems that JC investigators' posttraumatic symptoms persist when they try to ease and decrease their work-related tension with activities that are not a source of stress (alternative rewards), deliberately choose to avoid the emotional consequences (cognitive avoidance), and 'give in' as if nothing can be done about it (resignation). Something similar happens to the HSO investigators when they vent their emotional tension in other activities that might be risky in nature. On the other hand, interestingly, the JC group's symptomatology also rises when they try to share their burden with others. This might be a mechanism the investigators use to protect their support system by not traumatising it with narrations of a horrifying work experience. Similar was found in crime scene technicians (Hyman, 2004).

Another study aim was to identify work tasks the investigators find emotionally demanding and are thus potentially traumatic. The HCO group primarily points to interviews with witnesses and people close to the victim. Work with distressed people constitutes the most intense work situations. This is not surprising as PTSD criteria include *indirect* exposure to a traumatic situation – prior to DSM V (APA, 2013) this used to be called *secondary* or *vicarious* trauma (Figley, 1995; Pearlman & Saakvitne, 1995). The feeling of not being cared for by the management has also been shown to be an important factor in police traumatic stress. When support is felt and investigators' work is acknowledged as being important, this may represent a protective agent because in such circumstances an officer can find meaning in their (unnatural) exposure to traumatic elements (Henry, 2004; Perrin et al., 2007). Among the organisational factors, *working on-call* was also found to hold traumatic potential for the HCO group members. Even being at home or in a calm environment, knowing that at any time there might be a call not only disrupting one's sleep or weekend activities, but also and foremost

¹ It should be noted that *problem solving* does not mean resolving concrete police cases, but coping with an emotionally difficult situation.

expose the investigator on duty to possible traumatic experience, can in itself carry a traumatic impact. The trauma exposure begins before the actual traumatic event takes place (van der Kolk et al., 1996).

In the JC group, work situations that are traumatic practically do not include operational elements. The most stressful factors are physical in nature. It is almost as if the horrifying cases that they have to work on are blocked out and denied. If this is the case, it is likely due to avoidance strategies mentioned before. The content of their work is not as 'innocent' as might seem from this since the most traumatic situation is *monotonous work* and *going to court as a witness*. In court, one needs to talk about stressful situations and hence re-experience them. Moreover, what is told might be challenged by the defence, and may be perceived as mocking and undermining the quality of police work. As mentioned, these are factors that make working through the trauma very difficult, such as the frequent negative public opinion of police work and lack of leadership's care for criminal officers, which were also found to be linked to posttraumatic symptomatology. Monotony, on the other hand, may seem to be simply dull and boring work. Yet, in police work, it is often described as calm days punctuated by intense and adrenaline fuelled events, with the discrepancy sometimes making the monotonous office work frustrating and tense in anticipation of such events.

9 CONCLUSIONS

The results presented in the paper offer important insights into the trauma symptoms of two groups of criminal investigators. The high response rate makes the conclusions more robust, but there are some important limitations. First, the samples are small and most data are not normally distributed, limiting possibilities for statistical analysis. Second, the conclusions need to be carefully interpreted because the instruments used are not standardised on a Slovenian sample and trauma is multifaceted, whereas in this paper only certain factors were analysed.

Being exposed to traumatic events can lead to PTSD and posttraumatic symptomatology, but many other disorders and problems as well. Therefore, it is vital to recognise the factors that contribute to negative consequences to ensure better prevention and action. What can be deduced from our data is that differences exist between the two groups of investigators, which may be due to their exposure to different kinds of trauma. Investigators from the Juvenile Crime group show slightly greater impairment, which is expected given their line of work (Marshall, 2006; van Patten & Burke, 2001). In addition, the Homicide group might receive more informal support from their colleagues and management, mitigating the traumatic factors.

Both groups rely more on avoidance-coping strategies, which might be understandable considering the difficult work issues they encounter such as physical injury, violent death and the abuse of minors. More active and approach-oriented coping in such cases is difficult. Consequently, the avoidance coping enables them to work effectively on their cases because they are not overwhelmed and held back by emotions. Moreover, even though avoidance coping has been shown not to be beneficial in the long run (e.g. Krause et al., 2008;

Ménard & Arter, 2013), our data reveal most HSO and JC criminal investigators do not suffer from traumatic symptoms, meaning their coping strategies are efficient.

The differences identified between the groups not only give us insight into the current status of the criminal investigators, but provide important orientations for preventive and curative work in the area of police trauma, which should be group-specific.

REFERENCES

- American Psychiatric Association [APA]. (2013). *Diagnostic and statistical manual of mental disorders: DSM-5*. Washington: American Psychiatric Association.
- Anshel, M. H. (2000). A conceptual model and implications for coping with stressful events in police work. *Criminal Justice and Behavior*, 27(3), 375–400.
- Ballenger, J. F., Best, S. R., Metzler, T. J., Wasserman, D. A., Mohr, D. C., Liberman, A., ... Marmar, C. R. (2010). Patterns and predictors of alcohol use in male and female urban police officers. *The American Journal of Addiction*, 20(1), 21–29.
- Bourke, M. L., & Craun, S. W. (2014). Secondary traumatic stress among internet crimes against children task force personnel: Impact, risk factors, and coping strategies. *Sexual Abuse*, 26(6), 586–609.
- Briere, J. (2001). *Detailed assessment of post-traumatic stress (DAPS)*. Odessa: Psychological Assessment Resources.
- Brown, J., Fielding, J., & Grover, J. (1999). Distinguishing traumatic, vicarious and routine operational stressor exposure and attendant adverse consequences in a sample of police officers. *Work & Stress*, 13(4), 312–325.
- Darensburg, T., Andrew, M. E., Hartley, T. A., Burchfiel, M., Fekedulegn, D., & Violanti, J. M. (2006). Gender and age differences in posttraumatic stress disorder and depression among Buffalo police officers. *Traumatology*, 12(3), 220–228.
- Davidson, A. C., & Moss, S. A. (2008). Examining the trauma disclosure of police officers to their partners and officers' subsequent adjustment. *Journal of Language and Social Psychology*, 27(1), 51–70.
- Edelmann, R. J. (2010). Exposure to child abuse images as part of one's work: Possible psychological implications. *The Journal of Forensic Psychiatry & Psychology*, 21(4), 481–489.
- Ferguson, C. (2004). *Police officers' experience of trauma from working crime scenes*. (Doctoral dissertation). Chicago: Faculty of Chicago School of Professional Psychology.
- Figley, C. R. (1995). Compassion fatigue as secondary traumatic stress disorder: An overview. In C. R. Figley (Ed.), *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized* (pp. 1–20). New York: Brunner – Routledge.
- Garcia, L., Nesbary, D. K., & Gu, J. (2004). Perceptual variations of stressors among police officers during an era of decreasing crime. *Journal of Contemporary Criminal Justice*, 20(1), 33–50.
- Gershon, R. R., Barocas, B., Canton, A. N., Li, X., & Vlahov, D. (2009). Mental, physical, and behavioral outcomes associated with perceived work stress in police officers. *Criminal Justice and Behavior*, 36(3), 275–289.

- Gros, R., Neria, Y., Xuguang, T., Massa, J., Ashwell, L., Davis, K., & Geyh, A. (2006). Posttraumatic stress disorder and other psychological sequelae among World Trade Center clean up and recovery workers. *Annals of the New York Academy of Sciences*, 1071, 495–499.
- Haisch, D. C., & Meyers, L. S. (2004). MMPI-2 assessed post-traumatic stress disorder related to job stress, coping, and personality in police agencies. *Stress and Health*, 20(4), 223–229.
- Henry, V. E. (1995). The police officer as survivor: Death confrontations and the police subculture. *Behavioral Sciences and the Law*, 13(1), 93–112.
- Henry, V. E. (2004). *Death work: Police, trauma and the psychology of survival*. New York: Oxford University Press.
- Herman, J. L. (1992). *Trauma and recovery*. USA: Basic Books.
- Husain, W. (2014). Depression, anxiety and stress among junior & senior police officers. *Academic Research International*, 5(3), 239–244.
- Hyman, O. (2004). Perceived social support and secondary traumatic stress symptoms in emergency responders. *Journal of Traumatic Stress*, 17(2), 149–156.
- Kaltman, S., & Bonanno, G. A. (2003). Trauma and bereavement: Examining the impact of sudden and violent deaths. *Journal of Anxiety Disorders*, 17(2), 131–147.
- Karlsson, I., & Christianson, S. Å. (2003). The phenomenology of traumatic experiences in police work. *Policing: An International Journal of Police Strategies and Management*, 26(3), 419–438.
- Koch, B. J. (2010). The psychological impact on police officers of being first responders to completed suicides. *Journal of Police and Criminal Psychology*, 25(2), 90–98.
- Krause, E. D., Kaltman, S., Goodman, L. A., & Dutton, M. A. (2008). Avoidant coping and PTSD symptoms related to domestic violence exposure: A longitudinal study. *Journal of Traumatic Stress*, 21(1), 83–90.
- Maia, D. B., Marmar, C. R., Metzler, T., Nobrega, A., Berger, W., Mendlowicz, M. V., ... Figueria, I. (2007). Post-traumatic stress symptoms in an elite unit of Brazilian police officers: Prevalence and impact on psychosocial functioning and on physical and mental health. *Journal of Affective Disorders*, 97(1), 241–245.
- Mancini, A. D., & Bonanno, G. A. (2006). Resilience in the face of potential trauma: Clinical practices and illustrations. *Journal of Clinical Psychology*, 62(8), 971–985.
- Marchand, A., Nadeau, C., Beaulieu-Prévost, D., Boyer, R., & Martin, M. (2015). Predictors of posttraumatic stress disorder among police officers: A prospective study. *Psychological Trauma*, 7(3), 212–212.
- Marmar, C. R., Weiss, D. S., Metzler, T. J. & Delucchi, K. (1996). Characteristics of emergency services personnel related to peritraumatic dissociation during critical incidence exposure. *American Journal of Psychiatry*, 153(7), 94–102.
- Marmar, C. R., McCaslin, S. E., Metzler, T. J., Best, S., Weiss, D. S., Fagan, J., ... Neylan, T. (2006). Predictors of posttraumatic stress in police and other first responders. *Annals of the New York Academy of Sciences*, 1071, 1–18.

- Marshall, E. K. (2006). Cumulative career traumatic stress: A pilot study of traumatic stress in law enforcement. *Journal of Police and Criminal Psychology*, 21(1), 62–71.
- McCarthy, W. P., Zhao, J. S., & Garland, B. E. (2007). Occupational stress and burnout between male and female police officers. Are there any gender differences? *Policing: An International Journal of Police Strategies and Management*, 30(4), 672–691.
- McCaslin, S. E., Rogers, C. E., Metzler, T. J., Best, S. R., Weiss, D. S., Fagan, J. A., ... Marmar, C. R. (2006). The impact of personal threat on police officers' responses to critical incident stressors. *The Journal of Nervous and Mental Disease*, 194(8), 591–597.
- Ménard, K. S., & Arter, M. L. (2013). Police officer alcohol use and trauma symptoms: Associations with critical incidents, coping, and social stressors. *International Journal of Stress Management*, 20(1), 37–56.
- Moos, R. H. (1993). *Coping responses inventory – adult form*. Florida: Psychological Assessment Resources.
- Ozer, E. J., & Weiss, D. S. (2004). Who develops posttraumatic stress disorder? *Current Directions in Psychological Science*, 13(4), 169–172.
- Pacella, M. L., Irish, L., Ostrowski, S. A., Sledjeski, E., Ciesla, J. A., Fallon, W., ... Dehalanty, D. L. (2011). Avoidant coping as a mediator between peritraumatic dissociation and posttraumatic stress disorder symptoms. *Journal of Traumatic Stress*, 24(3), 317–325.
- Papazoglou, K. (2013). Conceptualizing police complex spiral trauma and its applications in the police field. *Traumatology*, 19(3), 196–209.
- Pasillas, R. M., Follette, V. M., & Perumean-Chaney, S. E. (2006). Occupational stress and psychological functioning in law enforcement officers. *Journal of Police and Criminal psychology*, 21(1), 41–53.
- Pavšič Mrevlje, T. (2013). Delovne situacije in posttravmatska simptomatika pri kriminalističnih tehnikih [Work situations and posttraumatic symptomatology among crime scene investigators]. *Revija za kriminalistiko in kriminologijo*, 64(1), 74–84.
- Pavšič Mrevlje, T. (2016). Coping with work-related traumatic situations among crime scene technicians. *Stress and Health*, 32(4), 374–382.
- Pearlman, L. A., & Saakvitne, K. W. (1995). *Trauma and the therapist: Countertransference and vicarious traumatization in psychotherapy with incest survivors*. New York: W.W. Norton & Company.
- Perez, L. M., Jones, J., Englert, D. R., & Sachau, D. (2010). Secondary traumatic stress and burnout among law enforcement investigators exposed to disturbing media images. *Journal of Police and Criminal Psychology*, 25(2), 113–124.
- Perrin, M. A., DiGrande, L., Wheeler, K., Thorpe, L., Farfel, M., & Brackbill, R. (2007). Differences in PTSD prevalence and associated risk factors among World Trade Center disaster rescue and recovery workers. *American Journal of Psychiatry*, 164(9), 1385–1394.
- Pietrzak R. H., Schechter, C. B., Bromet, E. J., Katz, C. L., Reissman, D. B., Ozbay F., ... Southwick S. M. (2012). The burden of full and subsyndromal posttraumatic stress disorder among police involved in the World Trade Center rescue and recovery effort. *Journal of Psychiatric Research*, 46(7), 835–842.

- Prati, G., & Pietrantonio, L. (2010). Risk and resilience factors among Italian Municipal police officers exposed to critical incidents. *Journal of Police and Criminal Psychology*, 25(1), 27–33.
- Roth, S., & Cohen, L. J. (1986). Approach, avoidance, and coping with stress. *American Psychologist*, 41(7), 813–819.
- Selič, P. (1994). Osebnostne lastnosti kriminalistov, njihovo poravnavanje z okoljem in temeljne zahteve kadrovske selekcije [Criminal officers' personality characteristics, coping strategies and basic demands of the selection process]. In *Dan raziskovalne enote: Zbornik prispevkov* (pp. 27–34). Ljubljana: Višja šola za notranje zadeve.
- Selič, P., & Umek, P. (1994). Analiza stresnih dejavnikov v policiji in preprečevanje njihovega vplivanja [Analysis of stress factors and prevention of their impact]. In *Dan raziskovalne enote: Zbornik prispevkov* (pp. 35–41). Ljubljana: Višja šola za notranje zadeve.
- Stanton, A. L., & Franz, R. (1999). Focusing on emotion: An adaptive coping strategy? In C. R. Snyder (Ed.), *Coping: The psychology of what works* (pp. 90–118). New York: Oxford University Press.
- Stephens, C., & Long, N. (2000). Communication with police supervisors and peers as a buffer of work related traumatic stress. *Journal of Organizational Behavior*, 21(4), 407–424.
- van der Kolk, B. A., van der Hart, O., & Marmar, C. R. (1996). Dissociation and information processing in posttraumatic stress disorder. In B. A. van der Kolk, A. C. McFarlane, & L. Weisaeth (Eds.), *Traumatic stress: The effects of overwhelming experience on mind, body, and society* (pp. 303–330). New York; London: The Guilford Press.
- van Patten, I. T., & Burke, T. W. (2001). Critical incident stress and the child homicide investigator. *Homicide Studies*, 2(2), 131–152.
- Violanti, J. M., Andrew, M. E., Mnatsakanova, A., Hartley, T. A., Fekedulegn, D., & Burchfiel, C. M. (2015). Correlates of hopelessness in the high suicide risk police occupation. *Police Practice and Research*, 17(5), 408–419.
- Waters, J. A., & Ussery, W. (2007). Police stress: History, contributing factors, symptoms, and interventions. *Policing: An International Journal of Police Strategies & Management*, 30(2), 169–188.
- Wearing, D. A. J., & Hart, P. M. (1996). Work and non-work coping strategies: Their relation to personality, appraisal and life domain. *Stress and Health*, 12(2), 93–103.
- Wilkinson, M. (2010). *Changing minds in therapy: Emotion, attachment, trauma & neurobiology*. London; New York: W. W. Norton & Company.
- Yehuda, R. (1998). Neuroendocrinology of trauma and posttraumatic stress disorder. In R. Yehuda (Ed.) *Psychological trauma* (pp. 97–132). London: American Psychiatric Press.

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