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The role of cognitive trauma processing in the occurrence of secondary traumatic stress symptoms in professionals working with people after traumatic experiences

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Summary

Aim. The aim of the study was to establish the relationship between cognitive trauma processing and secondary traumatic stress (STS) in professionals working with people after traumatic experiences.

Material and method. The results obtained from 500 persons representing five professional groups (therapists, paramedics, nurses, social workers and probation officers) were analyzed. There were more women (76.4%) than men (23.6%). The average age of the respondents is 44.09 years (SD = 9.85). The study used two standard measurement tools, i.e., the Secondary Traumatic Stress Inventory (STSI), and the Cognitive Processing of Trauma Scale (CPOTS), allowing assessment of five remedial strategies (positive cognitive restructuring, downward comparison, resolution/acceptance, denial, regret) and a survey developed for the use of the research.

Results. The obtained results indicated that medical personnel, including paramedics and nurses, revealed the highest intensity of STS, and therapists – the lowest. STS was associated mainly with negative coping strategies, such as regret and denial, which play the predictive role for STS.

Conclusions. There is a need to provide psychological assistance to professionals working with people after traumatic experiences, especially medical staff.

Key words: secondary exposure to trauma, secondary traumatic stress, cognitive trauma processing

Introduction

Secondary traumatic stress in professionals helping people after traumatic experiences

People who professionally help victims of trauma are themselves exposed to its experience in an indirect way. As a result of long-term contact with injured people,

helpers begin to look at the world through the eyes of a trauma victim, feel similar emotions, and sometimes display similar behaviors. The consequence of such a situation may be the occurrence of symptoms of secondary traumatic stress (STS).

The concept of secondary traumatic stress was popularized by Charles Figley, who defined it as "stress related to helping other people suffering or after trauma" [1, p. 110]. Moreover, Figley [2] treats this type of stress as a normal and natural effect of working with trauma victims, emphasizing that secondary traumatic stress is a disorder caused primarily by negative reactions of the person directly experiencing the trauma. The introduction of the concept of "secondary traumatic stress" was preceded by the term "compassion fatigue". The term was coined by Figley, initially to refer to nurses and then extended to therapists and other mental health professionals. Figley assumed that these professionals are the first to try to soothe the pain and suffering of people who have experienced trauma, but by helping others they become its victims themselves [2].

Another term often used to refer to this phenomenon is vicarious/secondary traumatization. As McCann and Pearlman [3] point out, the term refers to a description of changes in the helper's worldview that occur as a result of empathic involvement in helping traumatized clients. The concept of "vicarious traumatization" emphasizes changes in cognitive schemas and the process of adaptation. Most often, however, researchers use the term secondary traumatic stress, and its symptoms, according to the DSM-5 classification [4], reflect the symptoms of PTSD, including intrusions, avoidance, negative changes in cognition and emotions, and increased arousal and reactivity. For this reason, STS is also referred to as secondary PTSD.

Research conducted in this area [5-7] shows that among professionals working with people after traumatic experiences, high intensity of symptoms of secondary traumatic stress is revealed primarily by representatives of medical staff.

Cognitive processing of trauma and secondary traumatic stress

Among the factors that may determine the occurrence of secondary traumatic stress, a special role is attributed to the cognitive processing of trauma. This process refers primarily to the integration of information about the experienced event with previously possessed and shaped cognitive schemas and adaptation to the new reality changed as a result of the experienced trauma, and is treated as a mechanism explaining the development of PTSD [8-11]. Cognitive processing of trauma is often expressed in the form of cognitive strategies undertaken by the individual to cope with experienced traumatic events. Trauma coping strategies can be negative, such as regret or denial, and positive, including, e.g., cognitive restructuring or resolution/acceptance. Negative strategies favor the development and maintenance of PTSD symptoms, while positive strategies seem to protect against the development of PTSD or reduce the severity of symptoms included in this syndrome [11]. The developed models of PTSD [8] and STS [12] indicate the importance of negative cognitive coping strategies in the development and maintenance of the negative effects of trauma.

The conducted – although still few – studies confirm the positive relationship between negative coping strategies and secondary traumatic stress in professionals exposed to secondary trauma. In a group of professionals helping refugees [13] it was shown that avoidance-based strategies play a predictive role for STS symptoms (mainly intrusions, negative changes in cognition and emotions, and increased arousal and reactivity). Among investigators dealing with crimes against children [14], a positive relationship between STS and denial was revealed. Polish studies of medical personnel exposed to secondary trauma [7], in which the Polish adaptation of the Cognitive Processing of Trauma Scale was used, provided data indicating the predictive role for STS of two strategies, i.e., regret (positive relationship) and resolution/acceptance (negative relationship). Other Polish studies [15] show that regret is the main positive predictor of STS in the group of priests, and regret and denial were predictors of STS in the group of therapists, although it should be added that participation of these strategies in predicting STS was small. Research conducted among therapists working with victims of violence [16] revealed positive associations of STS with three (out of five) strategies, which were denial, regret and downward comparison. In addition, the strategies of regret and downward comparison acted as mediators in the relationship between one aspect of empathy, i.e., empathic concern, and STS.

It should also be noted that not only cognitive strategies, but also other types of remedial activity may be associated with the severity of STS. Research conducted by Manning-Jones et al. [5] among five groups of trauma health professionals provided data indicating that strategies such as self-care and receiving help from friends and family were negative predictors of STS. The authors also point out the need to conduct research that takes into account various groups of professionals and, taking into account the specificity of their work, to make comparisons between them in terms of the severity of STS and the factors determining its severity.

Aim of study

The aim of the undertaken research was to determine the role of cognitive coping strategies, treated as indicators of cognitive processing of trauma, in the occurrence of symptoms of secondary traumatic stress in professionals working with people after traumatic experiences. It was assumed that representatives of particular occupational groups exposed to secondary trauma will differ from each other, both in terms of the severity of STS and the applied coping strategies. It was also assumed that, regardless of the surveyed group of professionals, it is primarily the strategies falling within the scope of negative cognitive processing that will be positively associated with the severity of secondary traumatic stress.

Material

The research involved professionals working with people after various types of traumatic experiences, dominated by accidents (mainly traffic accidents), violence,

struggling with a chronic somatic disease and the sudden death of a loved one. The research was conducted in several centers in Poland, including crisis intervention centers, social care facilities, courts and hospitals. Participation in the research was voluntary and anonymous. The study was approved by the bioethics committee.

Out of the 580 people covered by the study who were exposed to secondary traumatization, the results of 500 respondents who completed the questionnaires were qualified for the analysis. They were representatives of five professional groups: therapists providing psychological assistance (n=80; 13.8% – men, 86.2% – women), paramedics (n=120; 61.7% – men, 38.3% – women), nursing staff employed in trauma wards and working in palliative care (n=65; 9.2% – men, 90.8% – women), social workers (n=95; 4.2% – men, 95.8% – women) and probation officers (n=140; 16.4% – men, 83.6% – women). The criterion for inclusion in the study was a permanent job involving helping people after traumatic experiences.

Most of the respondents were women (76.4%). The average age, which for the entire group of respondents was 44.09 (SD = 9.85) and average length of work experience (M = 15.94 years, SD = 10.0) turned out to be the highest in the group of probation officers and the lowest among therapists. The number of hours per week devoted to work with people after traumatic experiences (M = 32.95, SD = 22.22) was the highest among paramedics and the lowest in the group of therapists.

Method

In addition to a survey with questions about gender, age, work experience and the number of hours spent per week working with people after traumatic experiences, the study used two standard measurement tools, i.e., the Secondary Traumatic Stress Inventory and the Cognitive Trauma Processing Scale.

The Secondary Traumatic Stress Inventory – STSI is a modified version of the Polish adaptation [17] of the PTSD Checklist for DSM-5 – PCL-5, developed by Weathers et al. [18]. The Inventory is a self-assessment tool designed to study people who provide assistance to persons after traumatic experiences. Similar to the PCL-5, it consists of 20 statements ("To what extent did you have repeated, unpleasant and unwanted memories of stressful client events"), describing the basic symptoms included in the four PTSD criteria, i.e.: B. Intrusion; C. Persistent avoidance of trauma-related stimuli; D. Negative cognitive and emotional changes, and E. Increased arousal and reactivity. In accordance with the instructions, the respondent indicates to what extent the mentioned reactions occurred in him during the last month in connection with the assistance provided to people after traumatic experiences, assessing them on a 5-point scale, from "not at all" (0); through "slightly" (1); "moderately" (2); "significantly" (3); to "extremely" (4). A score of 33 or above indicates a high probability of a psychometric diagnosis of secondary traumatic stress. The tool has very good psychometric properties; Cronbach's α coefficient is very high and amounts to 0.95.

The Cognitive Processing of Trauma Scale (CPOTS) by Williams, Davis and Millsap [11] was adapted to Polish conditions by Ogińska-Bulik and Juczyński [19].

The tool consists of 17 statements ("Overall, there is more good than bad in this experience") and measures five aspects of cognitive processing: (1) downward comparison, (2) positive cognitive restructuring, (3) resolution/acceptance, (4) regret and (5) denial. The first three are the so-called positive cognitive processing, while the last two are negative cognitive processing. Participants respond to each statement on a 7-point scale from – 3 (strongly disagree) to 3 (strongly agree). The score for each scale is calculated separately. The reliability of the Polish version of CPOTS, assessed using Cronbach's alpha coefficient, is satisfactory. The coefficients obtained range from 0.89 to 0.56. The study used a version adapted to the study of people indirectly exposed to trauma.

Results

In the next steps of the data analysis, the means of the analyzed variables were determined, i.e., the strategies used to cope with trauma and secondary traumatic stress, the correlation coefficients between the variables, and then it was checked which coping strategies act as predictors of secondary traumatic stress in particular groups of professionals.

Parametric tests, including one-way analysis of variance (and Tukey's post-hoc test to determine the significance of differences between the means), Pearson correlations and regression analysis (stepwise, progressive version) were used for the analyses. The mean values of the analyzed variables are presented in Tables 1 and 2.

Table 1. **Means and standard deviations of applied coping strategies in particular groups of professionals**

	Coping strategies									
Groups	1		2		3		4		5	
	M	SD	M	SD	M	SD	M	SD	M	SD
1.	16.55	2.86	5.96	4.37	12.87	4.91	5.96	4.37	1.90	2.55
2.	19.70	2.76	8.47	3.66	12.66	4.99	8.47	3.66	9.63	4.47
3.	19.89	2.99	9.26	3.51	13.17	4.43	9.26	3.51	8.60	4.55
4.	18.89	3.08	7.67	3.95	12.60	4.73	7.67	3.95	7.43	4.32
5.	18.91	3.41	7.03	4.35	13.38	5.22	7.03	4.37	3.92	3.48
	F(4.495) =9.36; p<0.001 1<2-5		F(4.495) =8,17; p<0.01 1<2,3,4 2,3>5		F(4.495) =0.52, ns		F=(4.495) =8.17; p<0.001 1<2,3,4 2,3>5		F(4.495) =66.62; p<0.001 1<2-5 2>4,5 3,4>5	

Groups: 1. Therapists; 2. Paramedics; 3. Nursing staff; 4. Social workers; 5. Probations officers

Coping strategies: 1. Downward comparison; 2. Positive cognitive restructuring; 3. Resolution/ Acceptance; 4. Regret; 5. Denial

Based on the data in Table 1, it appears that therapists show a slightly lower tendency to cognitive processing of trauma compared to other groups of professionals. This is manifested by less frequent use of coping strategies such as downward comparison, positive cognitive restructuring, regret, and denial.

Table 2. **Means and standard deviations of secondary traumatic stress symptoms in particular groups of professionals**

Groups	STS – total		F. 1		F. 2		F. 3		F. 4	
	M	SD	M	SD	M	SD	M	SD	M	SD
1.	11.55	11.43	3.19	3.01	0.94	1.23	3.64	4.01	3.79	4.67
2.	31.92	18.28	7.77	4.71	3.09	2.07	10.7	6.80	10.3	5.97
3.	28.21	15.43	7.68	4.43	3.43	2.18	8.66	5.60	8.45	5.49
4.	25.31	13.64	6.88	4.18	2.92	1.93	7.66	5.28	7.84	5.06
5.	22.0	13.38	6.25	3.76	3.15	2.07	5.76	4.67	6.84	5.34
	F(4.495) =25.3; p<0.001 1<2-5 2,3>4,5		F(4.495) =17.77; p<0.001 1<2-5 2>5		F(4.495) =21.86 p<0.001 1<2-5		F=(4.495) =25.48; p<0.001 1<2-4 2>4,5 3>5		F(4.495) =18.84; p<0.001 1<2-5 2>4,5	

Groups: 1. Therapists; 2. Paramedics; 3. Nursing staff; 4. Social workers; 5. Probations officers

Factors: 1. Intrusion; 2. Avoidance; 3. Negative changes in cognition and mood; 4. Increased arousal and reactivity

The overall secondary traumatic stress score for the entire study group was 24.14 (SD = 16.11). At the same time, it should be noted that individual groups of professionals differ statistically significantly in terms of the severity of STS. The lowest were recorded in therapists, and the highest in medical personnel. Taking into account the cut-off point set for STSI (33 points), it was found that 29% of all surveyed professionals reveal high intensity of symptoms of secondary traumatic stress. In turn, taking into account individual groups of professionals, the severity of STS equal to or higher than 33 points, indicating a high probability of secondary PTSD diagnosis, was demonstrated in 7.5% of therapists, 45.8% of paramedics, 40% of nursing staff, 27.4% of social workers and 22.9% of probation officers.

It was also checked whether such variables as gender, age, work experience with people after traumatic experiences and the number of hours spent per week on direct assistance to victims of trauma are related to the intensity of the overall STSI score in the entire surveyed group of professionals. The latter two variables were treated as indicators of secondary exposure to trauma. Gender did not differentiate the severity of STS (men: M = 26.69, SD = 17.89; women: M = 23.63, SD = 15.46, t = 1.95).

The age of the subjects was not statistically significantly related to the severity of STS ($r = 0.09$). On the other hand, work experience with people after traumatic experiences was significantly correlated with the severity of STS ($r = 0.29$, $p<0.001$), as was the number of working hours per week ($r = 0.30$, $p<0.001$).

In the next step, using Pearson's correlation coefficients, the relationship between cognitive coping strategies and the severity of secondary traumatic stress symptoms in particular groups of professionals was established. The results are presented in Table 3.

Table 3. **Correlation coefficients between cognitive coping strategies and secondary traumatic stress in particular groups of professionals**

	Coping strategies				
Groups	1	2	3	4	5
Therapists (n=80)					
STS – total	0.22*	0.06	0.06	0.44***	0.30**
– intrusion	0.32**	0.17	0.17	0.35***	0.30**
– avoidance	0.17	0.20*	0.22*	0.16	0.14
– negative changes in cognition and mood	0.10	-0.06	-0.06	0.46***	0.26*
– increased arousal and reactivity	0.20*	0.04	0.04	0.42***	0.29**
Paramedics (n=120)					
STS – total	0.25**	0.11	-0.12	0.52***	0.52***
– intrusion	0.27**	0.09	-0.08	0.44***	0.47***
– avoidance	0.15	0.16	-0.09	0.43***	0.45***
– negative changes in cognition and mood	0.28**	0.10	-0.11	0.55***	0.54***
– increased arousal and reactivity	0.16	0.10	-0.13	0.47***	0.45***
Nursing staff (n=65)					
STS – total	0.01	0.13	-0.12	0.35**	0.22
– intrusion	-0.18	0.07	-0.20	0.21	0.22
– avoidance	-0.08	0.15	-0.06	0.07	-0.03
– negative changes in cognition and mood	0.08	0.05	-0.11	0.38**	0.30*

table continued on the next page

– increased arousal and reactivity	0.09	0.19	-0.03	0.39**	0.30*
Social workers (n=95)					
STS – total	0.26*	0.32**	0.04	0.24*	0.22*
– intrusion	0.11	0.15	0.01	0.18	0.06
– avoidance	0.16	0.27**	0.17	0.12	0.21*
– negative changes in cognition and mood	0.30**	0.30**	-0.01	0.23*	0.29**
– increased arousal and reactivity	0.22*	0.32**	0.05	0.21*	0.16
Probation officers (n=140)					
STS – total	0.10	-0.14	-0.06	0.35***	0.36***
– intrusion	-0.01	-0.12	-0.10	0.29***	0.25**
– avoidance	0.02	-0.25**	0.01	0.07	0.17*
– negative changes in cognition and mood	0.07	-0.14	-0.10	0.40***	0.39***
– increased arousal and reactivity	0.19*	0.05	0.01	0.30***	0.31***

Strategies: 1. Downward comparison; 2. Positive cognitive restructuring; 3. Resolution/Acceptance; 4. Regret; 5. Denial

*** $p<0.001$; ** $p<0.01$;* $p<0.05$

The data in Table 3 show that it is primarily negative coping strategies, such as regret and denial, that are significantly associated with the severity of STS, expressed in the form of the overall STSI score. The highest values of correlation coefficients between these strategies and STS were recorded among paramedics, slightly lower among therapists, probation officers and social workers. The weakest associations concerned the nursing staff, where only the regret strategy was statistically significantly associated with STS.

It is also worth noting the importance of two positive strategies, i.e., downward comparison and positive cognitive restructuring. Downward comparison was positively associated with STS in the group of therapists, paramedics and social workers; however, the values of the obtained correlation coefficients are low. In turn, positive cognitive restructuring turned out to be positively correlated with the severity of STS among social workers. The only strategy that showed no association with the overall STSI score is resolution/acceptance.

In the next step of data analysis, it was determined which coping strategies play the role of predictors in particular groups of professionals. The results are presented in Table 4.

Table 4. **Predictors of secondary traumatic stress in particular groups of professionals**

	Beta	Error of Beta	B	Error of B	t	p<
Therapists (n=80)						
– Regret	0.41	0.09	1.43	0.34	4.15	0.001
– Denial	0.20	0.10	0.63	0.40	1.92	0.05
Paramedics (n=120)						
– Denial	0.31	0.10	1.27	0.42	2.99	0.01
– Regret	0.31	0.10	1.34	0.45	2.96	0.01
Nursing staff (n=65)						
– Regret	0.35	0.11	1.23	0.42	2.93	0.01
Social workers (n=95)						
– Positive cognitive restructuring	0.29	0.09	0.98	0.34	2.88	0.01
Probation officers (n=140)						
– Denial	0.26	0.08	0.99	0.32	3.07	0.01
– Regret	0.25	0.08	0.91	0.30	3.01	0.01

Beta—standardized regression coefficient; *B*—unstandardized regression coefficient

In the group of therapists, the predictors of secondary traumatic stress turned out to be two negative strategies, i.e., regret and denial. However, their contribution to STS prediction varies. The strategy of regret has a greater share, which explains 19% of the variance of the dependent variable, while denial only 6%. Both strategies positively correlate with STS, which means that the greater the tendency to use them, the greater the severity of STS symptoms. Both coping strategies listed above also play the role of predictors of STS in the group of paramedics, but in this case the share of denial is significantly higher (27%), compared to the strategy of regret, which explains only 5% of the dependent variable. These strategies play a similar role in the group of probation officers. Denial explains 12% and regret explains 10% of the variance of the dependent variable. Regret turned out to be the only predictor of STS among the nursing staff, explaining 12% of the variance in the dependent variable. In turn, in the group of social workers, positive cognitive restructuring plays a predictive role for STS, explaining 10% of the variance of the dependent variable.

Discussion

Working with traumatized clients is for many professionals the cause of secondary traumatic stress symptoms, although, as the results of the conducted research have

shown, to varying degrees. The strongest consequences of secondary exposure to trauma seem to be borne by medical personnel, i.e., both paramedics and the nursing team, and the weakest by therapists. The latter revealed a significantly lower severity of secondary traumatic stress compared to the other four groups of professionals included in the study. This is not a surprising result. Therapists, among whom there are many psychologists, generally have not only knowledge about the negative consequences of secondary trauma, but also competence in dealing with it. Similar results indicating a low severity of STS among psychologists working with trauma victims were revealed in a New Zealand study [5]. The high competence of therapists in dealing with trauma experienced by clients is also confirmed by the results of research showing that these professionals, compared to representatives of other professional groups working with victims of trauma, reveal a significantly greater tendency to perceive secondary positive post-traumatic changes, expressed in the form of secondary growth after trauma [6]. The obtained data show that such competences are lacking in the medical staff. It can be assumed that the high intensity of STS among medical personnel is the result of the specificity of their work, which differs from the work of other professionals working with people after traumatic experiences, especially therapists. For paramedics and nursing staff, this exposure is much stronger, which is manifested not just by more working hours, but also by daily exposure to injured, hurting and suffering people. It can also be assumed that the high intensity of STS is the result of depletion of personal resources used in the process of coping with stress, or depletion of work resources, as indicated by Hobfoll et al. [20]. Rather low job satisfaction and an increased risk of professional burnout may also play a role here [21]. It should also be emphasized that in the case of medical personnel it is difficult to distinguish between direct and indirect trauma.

Professionals working with trauma survivors also differ in the cognitive processing of trauma experienced by their patients/clients, although this variation is less than in the case of secondary traumatic stress. Therapists show a slightly lower tendency to cognitively process trauma experienced by clients compared to other groups of professionals. This is expressed in the less frequent use of coping strategies such as downward comparison, positive cognitive restructuring, regret and denial. And in this case, the specificity of the work performed may be important. Perhaps for therapists the trauma experienced by clients is not a significant challenge and therefore cognitive processing is weaker in them. It cannot be ruled out that therapists' lower tendency to cognitively engage in trauma processing, including feeling regret and denial, may be a form of defense against stress. A similar role may be played by the ability to distance oneself from the client's problem, which may protect therapists from the symptoms of secondary traumatic stress. In addition, therapists help individuals who have experienced a variety of traumatic events, which can make the process of cognitively engaging with trauma processing difficult, especially with a large number of clients. It is also worth noting here that helpers are generally less cognitively involved in trauma processing compared to people who directly experienced traumatic events [6].

The results of the study showed positive relationships, mainly between negative strategies, in the form of regret and denial with STS. This applies to all analyzed groups, which suggests a universal nature of the relationship between this type of remedial activity and the negative consequences of secondary exposure to trauma. The more often these strategies are used, the greater the severity of STS. Moreover, these strategies also turned out to be predictors of STS in four out of five analyzed groups of professionals (therapists, paramedics, probation officers and partly the nursing team), although their share varies. Regret explained the most STS variance (19%) among therapists, while denial (27%) in the group of paramedics.

It is also worth noting the importance of positive remediation strategies for STS. In the case of social workers, the strategy of positive cognitive restructuring turned out to be the only predictor, explaining 10% of the variance of the dependent variable. Downward comparison turned out to be positively, though weakly, associated with STS in three groups of professionals (therapists, paramedics and social workers), although it was not a predictor. However, this suggests that comparing one's own position with people who are in a worse situation may favor the occurrence of negative consequences of secondary exposure to trauma, which undermines the importance of this strategy as a form of positive cognitive processing of trauma. However, it should be emphasized that this strategy, in the original version of the tool [11] shows the lowest reliability. The only strategy that is not associated with the intensification of STS is resolution/acceptance, which in turn, similarly to positive cognitive restructuring, promotes the occurrence of secondary growth after trauma, as confirmed in other studies [6].

Overall, the results obtained largely confirm the models developed for both PTSD [8] and STS [12]. They are also consistent with the assumptions of Williams et al. [11] indicating that negative cognitive strategies are conducive to the occurrence of PTSD.

The conducted research is associated with certain limitations. The study was of a cross-sectional nature, which does not allow for conclusions about cause-and-effect relationships. The research did not look at the types of events experienced by patients/clients. Also, own traumatic experiences that may have occurred in the surveyed professionals were not included. The analysis of the results did not take into account other variables, including sociodemographics and indicators of indirect exposure to trauma, such as length of work experience or the number of working hours per week devoted to direct assistance to victims.

Despite the indicated limitations, the results of the conducted research bring new content to the relationship between the cognitive processing of trauma and the negative consequences of secondary exposure to trauma. Their undoubted advantage is the inclusion of several groups of professionals working with people after traumatic experiences, and thus a large number of respondents, as well as the use of relatively new measurement tools, including the Secondary Traumatic Stress Inventory, based on the PTSD classification according to DSM-5. The conducted research may be an inspiration for further research, in which it would be worth taking into account other indicators of cognitive processing of trauma, such as ruminating about events

experienced by clients or disturbances in basic beliefs. Longitudinal studies that allow to capture changes in the scope of STS symptoms also seem appropriate.

The conducted research can also be used in practice to develop preventive programs aimed at preventing STS, or intervention programs intended for people who have already experienced such symptoms, which is especially true for medical staff, but also social workers or probation officers. It would be worth taking into account the expansion of competences in dealing with trauma, primarily by less frequent use of negative coping strategies, but also by encouraging the use of social support and self-care practices, which is pointed out by many researchers [6, 21, 22]. Extending the remedial competences of professionals working with people after traumatic experiences could not only reduce the severity of negative ones, but also increase the likelihood of positive consequences of secondary exposure to trauma.

Conclusions

Based on the results of the conducted research, the following conclusions can be drawn:

1. Professionals working with traumatized people bear the cost of this work in the form of symptoms of secondary traumatic stress. This applies to medical staff to the greatest extent, to therapists to the least extent.
2. The surveyed professionals representing five professional groups differ in terms of their tendency to cognitively process trauma; therapists, compared to other groups (paramedics, nursing staff, social workers, probation officers), use such strategies as regret and denial to a lesser extent.
3. Negative strategies, i.e., regret and denial, are positively associated with secondary stress, but also – though to a lesser extent – downward comparison and positive cognitive restructuring.
4. The predictive role for STS, regardless of the surveyed group of professionals (apart from the group of social workers), is played by the strategies of regret and denial.
5. There is a need to provide psychological assistance to professionals working with people after traumatic experiences, especially medical staff.

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