

Coping with stress in subjects who have experienced a traumatic situation

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Summary

Does the traumatic experience influence the choice of a particular coping style? If yes, which style is preferred by those who experienced trauma? Answering these two essential questions is the aim of this paper. The authors have accepted the assumption (Holman, Silver), that the individuals who experienced trauma prefer past temporal orientation and they present a higher level of distress. The authors investigated two groups. The experimental group consisted of 46 victims of the Gdańsk Shipyard concert hall fire. The control group comprised the 41 individuals who never experienced any trauma. Two psychological methods were used. CISS – Endler and Parker, which measures coping styles, as well as the STAI – Spielberger and al., which was the second method applied, measuring the level of anxiety as an essential distress indicator. The results show, that individuals who experienced trauma, presented a significantly higher level of anxiety and that the victims of trauma prefer the emotional coping style. The difference between the groups is statistically significant. There is also an indirect conclusion (based on these results), which confirms the above mentioned assumption.

Key words: coping styles, experience of trauma

Introduction

Traumatic events are by definition events of unusual weight and as such they have a great impact on the lives of people that have experienced them. An important element of the experienced trauma is an eruption of emotions, especially negative ones. If the traumatic event was a long-term one, the negative emotions, thoughts and often behaviours were accumulated over an extended period of time. Independent of the length of the traumatic stress, it is the person's specific reaction to this stressful situation that matters.

Some of the studies indicate that traumatic experience often, among other widely described reactions, also negatively affects sequential thinking [1]. An attempt to explain this phenomenon is usually based on the time orientation principle. Among people that have experienced a traumatic event, one can observe a characteristic tendency of looking backwards. Such people concentrate their thoughts on what they

have once experienced. They concentrate on the past. Zimbardo [2] stresses that time orientation is an important element that organizes and therefore significantly affects an individual's life. By focusing on the past, an individual is prone to alter processing of current information. It is affected by the experience of the past trauma that still significantly impacts one's thoughts, feelings, and behaviour. Zimbardo's theory has been further developed by Holman and Silver [3]. Their studies support the previous findings that people that have experienced trauma are concentrated mainly on the past and can be characterized by a high level of a psychological distress. They go on further and argue that the level of psychological distress significantly depends on one's time orientation. People with the backward orientation had much higher distress levels than individuals with present or future orientation [3].

With regard to the relative concept of stress, which dominates modern psychology, Lazarus and Folkman developed a theory of relative coping, which they define as: "constantly changing cognitive and behavioural attempts of an individual aimed at meeting certain external and internal expectations that are viewed by this individual as overly challenging" [4]. This theory is concerned with coping with present events and as such requires an individual to consider and process the current situation. As apparent from the previously discussed findings [3], people that experienced trauma and are therefore orientated towards the past, will be prone to process current information in a distorted way. Their thinking, feelings and actions are "infected" by relating everything to the traumatic event.

Based on these implications coming from the literature, the authors of this paper pose the following question: is the past traumatic experience still affecting the preferable stress coping style in spite of the time that passed since that event took place? If yes, what is the most common style of coping that these people choose? The authors of this article also study whether people oriented towards the past are indeed characterized by a higher level of psychological distress. This analysis takes into account the level of fear, which is not the only one but nevertheless, it is a significant indicator of psychological distress.

Subject and Methods

There were two groups studied: 1) an experimental group, consisting of the 46 victims of the fire in the Gdansk Shipyard's concert hall and 2) a control group, consisting of 41 people. For the individuals in the first group the fire that happened on 24th November of 1994 definitely had a traumatic impact. All of them, to a different degree, were physically affected. For all of them this fire and its consequences were the sources of very strong psychological shock. This group consisted of 28 women (60.9%) and 18 men (39.1%) aged between 19 and 28 years (the mean age was 21.9 years).

The second, control group, consisted of 41 people – 26 women (63.4%) and 15 men (36.6%), aged 19 to 37 years (the mean age was 23.4 years). Among characteristics that were considered in order to qualify for this group, the individuals had to be of a similar age to the experimental group and more importantly they must not have experienced a traumatic event in their lives.

The following two methods were used in this study:

1. Endler and Parker's [6] CISS questionnaire in Polish designed by P. Szczepaniak, J. Strelau and K. Wrześniewski [7].

It concerns the styles of coping with stress. Results are obtained separately for three groups (scales): copying styles based on tasks, emotions and avoidance. There are two versions of the last group: engagement in secondary activities and search for social interaction. Reliability of this CISS questionnaire was estimated by Endler and Parker by studying internal and absolute stability of the three scales. Internal stability was estimated in five independent studies using Cronbach's alpha coefficients. These coefficients are high for all the five scales and vary between 0.72 – 0.92. Absolute stability was obtained by estimating the correlation coefficients between the two studies conducted within 6 weeks. They are satisfactory and vary between 0.51 – 0.73 [6]. The Polish version of this questionnaire is psychometrically similar to the original version [7].

2. Inventory of states and characteristics of fear (ISCL) in the Polish adaptation by C.D. Spielberger, J. Strelau, M. Tysarczyk and K. Wrześniewski, [8].

This questionnaire measures the level of the state of fear and the characteristic of fear. It consists of 40 statements; the first 20 are concerned with measuring the state of fear, the remaining 20 with measuring the characteristic of fear. Each individual rates each statement in a 4-category scale. The results for state of fear and characteristics of fear are calculated separately.

Results

The results obtained for people that have experienced trauma differ significantly from the results obtained for the control group (people that have not experienced any traumatic event). Specifically, they differ mainly with respect to the preferable style of coping with stress. That was one of the questions and, at the same time, one of the hypotheses stated in this study. Similarly, the second hypothesis regarding higher levels of psychological distress among people that have experienced trauma was also supported by the results obtained in this study.

Starting with the second hypothesis, the results for the levels of fear, an important indicator of psychological distress, are presented in Table 1. They are presented for the two groups: the study group (consisting of the victims of the fire mentioned before) and the control group.

As the results presented in Table 1 indicate, there were, according to our expectations, significant differences in the levels of anxiety - state and characteristics of fear. Comparison of the anxiety level – “state” and “trait” in the experimental and control groups

Anxiety level (ISCL)	Experimental group		Control group		p [*]
	M	σ	M	σ	
Anxiety - state	46.20	12.36	36.24	11.02	p<0.001
Anxiety - trait	50.90	10.09	39.41	12.36	p<0.001

* p for t-Student

Individuals from the study group (the victims of fire) were characterised by significantly higher levels ($p<0.001$) for both indicators as compared with the results obtained for

Table 2

Coping styles in both groups

Coping styles	Experimental group		Control group		p [*]
	M	σ	M	σ	
Task oriented	50.89	9.88	59.00	9.00	p < 0.01
Emotional	52.11	11.68	46.68	9.82	p < 0.01
Avoiding	46.20	9.30	46.31	9.06	p = ns.
AST	21.10	5.11	16.31	5.15	p = ns.
LSC	16.65	4.40	18.24	3.11	p < 0.01

- P for t-Student
- AST – acting in secondary tasks
- LSC – looking for social contacts

the control group.

Another hypothetical assumption concerned differences in coping styles between the two groups. Based on the literature review, it was expected that individuals that have experienced trauma (oriented towards the past and characterised by higher levels of fear) would prefer more emotional and less task-oriented styles of coping with stress as compared with the control group. The results are presented in Table 2.

As the results presented in Table 2 indicate, the individuals from the study group, the ones that have experienced trauma, differ from the individuals in the control group in terms of emotional and task oriented styles of coping with stress. The study group is characterised by significantly higher scores for the emotional style and significantly lower scores for the task-oriented style as compared with the control group. As far as the avoidance style is concerned, the two groups are not significantly different from each other. However, some important differences can be observed for a subgroup of this style – searching for the social interactions. Specifically, individuals from the control group obtained statistically higher scores relative to the individuals from the study group.

Another question concerns the influence of sex on the level of fear and the choice of a particular coping style. In order to answer this question the ANOVA methodology was used. The level of state of stress and characteristic of stress were chosen as the dependent variables (each one in a separate regression). Sex (male-female) and group (study-control) were chosen as independent dummy variables. The results of the variance analysis for all the variables are presented in Table 3. The degrees of freedom are the same for all the variables and equal to 1.83.

The variance analysis of dependent and independent variables indicates a statistically significant difference in only one of the styles of copying. Specifically, men unlike women preferred the avoidance style of searching for the social interactions. For these results, the group also mattered. The other results point to a statistically different role of experiencing trauma (study or control group membership) on both the levels (of state and trait), as well as on the choice of the coping styles – task-oriented, emotional, and avoidance (involvement in the secondary tasks). There are, however,

no statistically significant differences between men and women.

Discussion

Table 3

Results of variance analysis (dependent variances: scores of ISCL and CISS scales, independent variances: sex, group – experimental and control, df for all variances = 1.83).

Dependent variances	Main effects	F	p
Anxiety - state (ESC I)	sex	3.078	p = n.s.
	group	14.789	p < 0.001
	interaction (sex vs. group)	0.106	p = n.s.
Anxiety - trait (ESC I)	sex	2.754	p = n.s.
	group	33.199	p < 0.001
	interaction (sex vs. group)	0.007	p = n.s.
Task oriented style	sex	0.018	p = n.s.
	group	14.769	p < 0.001
	interaction (sex vs. group)	0.135	p = n.s.
Emotional style	sex	0.154	p = n.s.
	group	14.942	p < 0.001
	interaction (sex vs. group)	1.315	p = n.s.
Avoiding style	sex	3.094	p = n.s.
	group	0.051	p = n.s.
	interaction (sex vs. group)	0.511	p = n.s.
Avoiding style (AST)	sex	0.365	p = n.s.
	group	3.688	p = n.s.
	interaction (sex vs. group)	0.247	p = n.s.
Avoiding style (LSC)	sex	8.051	p < 0.01
	group	7.072	p < 0.01
	interaction (sex vs. group)	0.959	p = n.s.

AST – acting in secondary tasks

LSC – looking for social contacts

The results presented above point to several conclusions. They support the claims discussed in the literature review regarding fear, being a very important phenomenon and closely related to the traumatic experience. Individuals that have experienced traumatic stress as a result of the fire of the concert hall of the Gdansk's Shipyard, are characterised by a statistically higher level of fear (both state and characteristic), as compared with the individuals from the control group (that have not experienced traumatic stress). This result is in line with the results obtained by Holman and Silver [3]. They claimed that people that have experienced a traumatic situation are oriented towards the past and are characterised by the high level of psychological distress, of which fear is an important indicator.

When studying preferences for choosing a particular style of coping with stress, it turns out – as expected – that the victims of the fire in the concert hall are statistically different from the control group in terms of the emotional style of coping. Individuals that have not experienced any traumatic situation use this style much more often. As discussed in literature [9], it is an “emotionally costly” style. Individuals preferring this style tend to be concentrated not so much on the task or the problem itself, but mainly on themselves, on their emotions. This situation leads to the manifestation of several negative emotions. Such individuals experience anger, sadness, guilt, and tension. It may also result in fantasising and magical thinking. Even though individuals preferring this style are aimed at avoiding emotional tension, the effect is quite the opposite; usually tension and sadness increases. Choosing an emotional style of coping also indicated the orientation towards the past, as discussed in Holman and Silver [3]. Another important observation regarding differences in the styles of coping between the two groups concerns one of the avoidance styles – searching for social interactions. The victims of trauma much less often use this style, which is consistent with a commonly observed tendency towards isolation among these individuals.

As far as the impact of sex is concerned, it turns out it is not so important for the level of fear or the choice of copying style. The only exception is a much more frequent choice of the avoidance style (but only the searching for the social interaction type) by men. This indicates that men that have experienced trauma are more likely than women that have experienced trauma to cope with stress by searching for social interactions. That seems to be a little surprising, but perhaps not?

Conclusions

1. The individuals that have experienced psychological trauma are characterised by a statistically higher level of anxiety, as compared with individuals without such experiences.
2. The individuals from the first group are also more likely to choose the emotional style of copying with stressful situations, which is more emotionally costly and less effective. Choosing this style may be the result of the orientation towards the past (going back to what happened in the past).
3. With regards to the two parameters - anxiety and a copying style – sex does not play any significant role (with the one exception discussed above.)

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