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# Resuscitation

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## Letter to the Editor

### Can resuscitation bring positive changes for paramedics? Polish experiences

Sir,

Paramedics frequently experience events connected with fear, suffering, threat to health, life or death in their professional work. Extremely stressful and aggravating situations include performing Cardiopulmonary Resuscitation (CPR) in people with Sudden Cardiac Arrest (SCA). The aim of the study was to determine what negative and positive consequences result from trauma of resuscitation in the work of paramedics. Posttraumatic Stress Disorder (PTSD) symptoms have been identified as an indicator of negative results of traumatic event, while positive ones - benefits of trauma that is posttraumatic growth (PTG) include changes in self-perception, change in relationships with others, greater appreciation of life, and spiritual change.

The study covered all paramedics registered in the provincial register, 888 paramedics employed in the units of the medical rescue system in the Podkarpackie province. 304 consents were obtained, 270 paramedics who had declared experience of at least one traumatic situation in their work during the last year involving performing CPR were qualified for the analysis. Two tools were used in the study – The Impact of Event Scale-Revised (IES-R) and Posttraumatic Growth Inventory (PGI), both scales were adapted into Polish by Z. Juczyński and N. Ogińska-Bulik. The study group included 270 medical rescuers (M-92.4%, F-7.6%). Mean age was 33.62 yrs (SD=7.14), Min –22, Max –55 years old. The average work experience in the profession was 7.62 years (SD=4.12).

In the study group, 100% of paramedics experienced traumatic events in the form of conducting CPR in a person with SCA. Of the participants, 34.8% (94 of 270), scored > 1.5 in each IES-R subscale which indicates a preliminary diagnosis of PTSD. Severe avoidance symptoms occurred in 44.8% of the subjects, intrusion in 29.6%, and hyperarousal in 30.4%. The mean score for the IES-R was 1.25. In the study group, 26.3% of the subjects were characterized by low levels of posttraumatic growth, 40.4% – average and 33.3% – high. Most positive changes have been observed in the appreciation of life and changes in self-perception, and the least in the spiritual sphere. The benefit of trauma was slightly higher in women. PTSD symptoms were slightly higher in men and in older subjects. There was a positive correlation between the overall IES-R score and PTG ( $R=0.18$ ,  $p>0.001$ ), particularly strong correlations were observed with greater appreciation of life and spiritual change.

Both negative and positive effects of trauma were experienced after CPR in the study group. Studies have shown that the increase and state of distress, which appear to be two distinct independent dimensions of the traumatic event, may coexist in the study group.

The indicated correlations between PTSD and PTG symptoms contribute to a better understanding of the mechanisms underlying experience of traumatic events at work. They point out that

PTG reflects both coping efforts that can coexist with distress and effective dealing with negative events. The obtained results indicate a new direction of search and will certainly be an inspiration for other researchers interested in the problem of negative as well as positive consequences of the experience of traumatic events in the work of paramedics.

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The author has no financial relationships relevant to this article to disclose.

### Conflict of interest statement

The author has no conflicts of interest relevant to this article to disclose.

### Further reading

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