

Implementation of Preventive and Intervention Psychological Methods for EMS Professionals in the Czech Republic

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Study called „Stress of EMS professionals with special attention to burnout syndrome“ has been proposed in EMS of the Central Bohemian Region with co-operation with National Institute of Public Health.

The objectives of this study were to analyze the sources of stress associated with profession, the degree of exposition to critical incidents and to analyze the positive factors of profession as they are seen by respondents. As burnout syndrome is associated with chronic and permanent stress as well as with repeated expositions to critical incidents the average and individual rates of burn-out syndrome symptoms were also studied. The results of this first part of the mentioned study were published in EuSEM Congress in Leuven, 2005.

Just to remind: we have found high but expected exposition to all critical incidents associated with profession (multiple victim accidents and mass casualties, treating patients with burn trauma, death or unsuccessful PALS of a child). We have also found unexpectedly high experience with endangering of the professionals during duty – 71% of 290 respondents had this experience, mostly assault and ambulance car accident.

The categorisation of critical incidents which were for professionals participating in the study sources of stress associated with profession showed that the death of a child was named the most frequently and also with the highest intensity. The most positive aspect of the work in EMS was helping other people and saving their health/lives and the intensity of this factor was also the highest from all positive influences.

Implementation of preventive and intervention methods into the practice of EMS (the second part of this prospective study) had started in 2004. Preventive lectures, communication training both for dispatchers and EMS teams, psychological consultations concerning professional stress and coping with it, structured interviews and CISM interventions after critical incidents (Mitchel's model) were performed in co-operating organisations in paramedics, nurses, dispatchers and physicians. A questionnaire concerning evaluation of these interventions and a screening test of symptoms of burnout syndrome (the

same as in the year 2003) was later sent to all 14 regional EMS services in the Czech Republic and 7 of them – that means half of EMS organisations in the Czech Republic - participated in the study.

Material and Methods

2003: 350 questionnaires sent, 290 respondents (return rate 82,9%).

2005: 750 questionnaires were sent, 644 were returned (85,8%) and 597 respondents of them met inclusion criteria in the year 2005 (the length of work in EMS at least one year, from half-time to full time job and agreement with participation in this study). The questionnaire was strictly anonymous and the participation voluntary.

Groups from the year 2003 (290 respondents) and from 2005 (597) were compared and in the second year (2005) group with any, at least one, psychological intervention (A = 372) and without any psychological intervention (B = 225). Analysis of variance (ANOVA) was used for basic comparison and for the test of individual factor's influence on burnout symptoms GLM (General Linear Model) was used, using software SPSS, version 12. The same comparison was used also for each of four professional groups: physicians, medical nurses, paramedics and dispatchers.

Results

Burnout syndrome:

We have not found significant difference between the year 2003 and 2005 and in the group with and without preventive and intervention psychological strategies used (2005 – A vs. B). We have found highly significant difference between the group of dispatchers compared to any other professional group. The other factor influencing highly significantly symptoms of burnout is the length of practice in EMS. No other factor (sex, matrimonial status, any professional position other than dispatcher, age) has had influence on the degree of burnout.

Variable	Statistical significance (p)
Sex	0,842 n.s.
Age	0,164 n.s.
Length of practice in EMS	0,002 **
Matrimonial status	0,995 n.s.
Professional position	0,000 **
Group of respondents (2003, 2005)	0,697 n.s.

n.s. ... no statistical significance

** ... $p < 0,01$, high statistical significance

Intervention yes/no (2005) 0, 771 n.s.

Average scores of burnout syndrome in professional groups

Professional group	2003		2005	
	Frequency	Average score	Frequency	Average score
Dispatchers	51	1,57	87	2,54
EMS physicians	43	1,42	52	1,08
Medical nurses	151	1,40	259	1,08
Paramedics	41	1,15	199	1,20

Evaluation of screening questionnaire :

1 point for each answer „Yes“, total number of 10 questions

0 – 2 without risk of burnout

3 – 5 developing burnout syndrome

6 – 8 clinical burnout syndrome

9 – 10 – psychological or psychiatric intervention necessary

Satisfaction with psychological preventive and intervention techniques:

In the year 2005 there were 372 respondents in group A and 225 in group B. The highest satisfaction we have found with preventive lectures and communication training (both 92%), CISM techniques 83%, structured interview 81%, individual psychological consultation concerning professional stress 79%.

Conclusions

The only two factors influencing highly significantly the symptoms of burnout syndrome are the position of EMS dispatcher and the length of practice in EMS.

The implementation of psychological preventive and intervention methods can improve the level of well-being of EMS professionals and it may show the influence in the future. All kinds of interventions were positively accepted. Specific programmes should be prepared especially for dispatchers as the amount of their professional stress is significantly higher and these programmes should be recommended for wider application.
