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Psychosocial workload of Swedish ambulance and emergency room personnel with high prevalence of dying, death and grieving relatives. A descriptive and comparison study

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Abstract: Frequent caretaking of severely ill, dying, and dead people as well as bereaved close relatives could involve too much stress for emergency personnel to be satisfied with the job situation. Screening for critical aspects for work satisfaction and endurance at ambulance and emergency rooms would provide useful information to the workers themselves, their management, and for pre-hospital acute routines/programs. Two hundred and forty 40-item job-related, postal enquieries on demographical, as psychological, social, economical, and existential work aspects were sent to 26 clinical directors to be assessed by personnel at the ambulance and emergency rooms in Sweden. The response rate was 64%, the majority being nurses and nurse assistants, experiencing a very high, high, or rather high prevalence of severely ill or dead patients at their work place. The hospitals' frequency of severely ill or dead patients predicted a higher mental workload experience in both ambulance and emergency room personnel. More personnel at the emergency rooms compared with ambulance workers expressed time pressure and were less satisfied with their caretaking, two of three reporting their job to be mentally straining as compared with one of three among the ambulance personnel. Change of work due to heavy workload was reported by one in three. The majority thought they could get used to a job with death and grieving, wellbeing however negatively affected. Still, the majority reported good health and little sick leave due to excessive workload. Several critical factors seemed important for job satisfaction among Swedish ambulance workers and personnel at the emergency rooms. Complaints about psychological stress, physically high workload, physical damage, many working hours, low salary, much shift- and night work, better vacation leave, more resources, too little time for recovery, crisis support and guidance, better routines, more explicit care programs including improved bereavement support for relatives, better possibilities for job control, self-efficacy, unit efficiency, and clearer work duties, and a family-non-conflicting job situation could favour work performance in both groups.

Keywords: Ambulance Personnel, Emergency Room Personnel, Trauma, Bereaved Relatives, Psychosocial Workload, Dying, Death

1. Introduction

Loss by death is said to be the most stressful event in a person's life (1). The nearness of death often has detrimental effect on quality of life of all the involved people in the dying process: for the patient, the close relatives, and sometimes also the caring personnel. Preparatory grief is a common experience among families of terminally ill patients and is said to have many characteristics similar to grief reactions appearing after the loss (2).

Death may, however, sometimes occur unexpectedly and rapidly without any period of preparation. Sudden death may lead to complicated grief for those left behind, and cause stress for the professionals handling the acute situation (3, 4).

Since most health care professionals may be trained in emergency medicine where all efforts are employed to

prolong life, they may not be comfortable caring for dying patients (5). Ambulance service workers and personnel at emergency rooms are frequently exposed to highly stressful situations during their everyday work activity. Exposure to critical incidents and traumas may in some emergency service personnel cause severe anxiety, PTSD symptoms, and a phenomenon designated "peritraumatic dissociation" (6). Maladaptive responses at critical incidents involving e.g. multiple casualties at disasters, children's' trauma, and prolonged extrication of trapped victim with life-threatening injuries, should be met with therapeutical treatment and long-time follow up to prevent burnout among the rescue personnel (7). A substantial number of ambulance service workers may need support in processing distressing incidents at work and may benefit from information that normalizes post-traumatic symptoms such as intrusive memories (8).

Professionals who work in situations that expose them to death have been of interest to traumatic stress research for many years. Various personal characteristics of stress preventive nature, as well as beneficial coping strategies in emergency service personnel have been shown to be crucial in research among emergency health care teams (9-11). However, the nature of these characteristics may vary and may also be difficult to separate. Farias and coworkers (12) reported that the emergency health care team workers' pain always resulted from emotional stress or appeared after providing emergency care, which suggests that the workers find it very difficult to differentiate physical from mental stress.

The factor of years at work tends to be of importance. Personnel with more work experience seem to have more positive attitudes toward death and caring for dying patients (13). Positive attitudes were significantly predicted by an approach acceptance death attitude and social support; negative ones were predicted by e.g. fear of death, intrusions and avoidance (14).

Studies on grief among professional carers reveal, among other things, loss of energy and well-being, particularly shown at inadequate preparation, problems with peers and supervisors, heavy workload, conflicts with physicians, uncertainty concerning treatment, patients and their families (15-17).

The most developed support systems seem to exist among palliative health care professionals (18, 19). However, a substantial subgroup of emergency service personnel may need support in processing distressing incidents at work and may benefit from information that normalizes post-traumatic symptoms such as intrusions (9). The best predictors of high stress scores among community working nurses were having an unsupportive line manager, working with a specific client group and, finally, not having job security (20). These findings indicate that there is a need to create more supportive environments both in terms of job security and management (21). Team reflective practices were also important in the support of their professional development (10). The contribution of the organizations in coping to lower stress, education and training may help the professionals deal with reactions of anxiety and improve their mental health in the most disturbing situations.

Lack of communication and coordination may threaten patient safety, and is often a disturbing factor to various caregivers (22). Prehospital triage to improve patient safety by shortened lead times associated with the handover of patient care between ambulance and emergency department. To be able to provide satisfactory care of dying people requires focus on several critical moments for personnel in emergency care. The resources of staff and economy seemed to be a constant challenge.

Comparisons of work burden, stress factors, and job exhaustion could be less meaningful without separating areas of care situations. In this study we focused on the caretaking by the Swedish ambulance personnel and the medical professionals at the emergency ward, each sector providing immediate help according to the personnel and instrumental equipment. The job often involves cases of life-threatening illnesses as well as accidents with high risk for the injured person's life, demanding fast and drastic action, short time span, as well as lack or uncertainty of resources available. The care in their respective areas also involves supportive actions for the close relatives of the person being wounded, severely ill or dead.

2. Aim and Method

2.1. Aim

The aim of the study is to record the occurrence of critical psychological, physical, social issues as well as other aspects (e.g. financial, personnel, and educational resources) by the two types of rescue personnel, the ambulance workers and the emergency room personnel, and to identify differences between the groups.

2.2. Data Collection and Participants

Postal surveys were sent to 26 clinical directors of Swedish ambulance and emergency rooms, totally including 240 enquieries with answering envelopes (addressed to the project leader) for the directors to hand out among the ambulance and emergency room employees. To ensure confidentiality, no names of the respondents or code namnes were used, also stating there would be no second follow-up enquiery.

The 40-item job-related enquiery covered, besides the demographic questions, psychological, social, economical, and existential aspects on their frequently - often daily – meetings with severely ill, dying and dead people and their families.

The questionnaire included a selection of revised items taken from Frommelt Attitude Toward Care of the Dying Scale (23), Death Attitude Profile-Revised (24, 25), Nursing Stress Scale (15), and some earlier grief studies of the authors of the present paper. In the questionnaire some lines were reserved for the respondents' personal views and rankings as well as spontaneous comments on job experiences.

2.3. Statistics

Comparisons between characteristics of the 2 groups were done with Fisher exact test. < 0.05 was defined as statistically significant.

2.4. Ethics

All participants were informed about the purpose of the research, could freely ignore the questionnaire handed out by their staff leader, did not write their name on any answer, were nor coded in any way on the envelope, and were therefore ensured anonymity also in the published work. The study is a part of the longitudinal Widowhood Project at Sahlgrenska University Hospital, which has been approved by the Ethical Committee of the University of Gothenburg (Dnr 253-95).

3. Results

We received a total of 153 answers (64%). One questionnaire was returned blank, two were not fully completed, and three were returned too late. Data analyses were therefore made from 147 answers. Fifty-two percent of the respondents were women, 42% men, and 6% had not answered the question about gender. Of all participants, 48% were ambulance personnel and 51% from the emergency rooms. Significantly more men than women were ambulance workers, whilst more women than men were emergency room workers (p=0.0000). Among the ambulance workers 31% were women and 69% men, the overall mean age being 40.1 yrs, median 38 yrs, and SD 10.8 yrs. Among the emergency room personnel, 72% were women and 28% men, and the overall mean age 49.7 yrs, median 39.9 yrs, SD 8.4 yrs (no significant differences in age between the two groups). The age of the respondents varied between 22 and 65 yrs, and 71% in both groups had been working within the same job between 6 and 50 years. Among the ambulance workers, 50 respondents were nurses, 5 nurse assistants and 1 physician. Among the emergency room personnel 52 were nurses, 18 nurse assistants and 7 physicians.

The majority experienced a very high to rather high prevalence of severely ill or dead patients at their work place (Table 1). At hospitals with a high number of severely ill or dead patients (more at the emergency rooms compared to the ambulance), the personnel in both groups reported a significantly higher mental workload compared with hospitals with a lower number (p=0.0113). Among the emergency room personnel, two of three reported their job to be mentally stressful, as compared with one of three among the ambulance personnel. Providing adequate care to the acutely ill, dying and their relatives did not correlate with the experience of mental stress. More personnel at the emergency rooms expressed time pressure at work and were less satisfied with their caretaking (p=0.0001) than at the ambulance. Change of work due to heavy workload was reported by one in three. Many in both groups thought that explicit care programs at work would favour their work performance, however, being more used at the ambulance employees than at the emergency rooms (p=0.0215).

Table 1. *Results (%) from and comparisons (statistical significances shown) between the two study groups; ambulance workers (n=73) and emergency room personnel (n=74).*

I find my present mental workload stressfull	Ambulance	Emergency	Diff.
Very	0	14	**
Rather	35	47	
Not very	59	33	
Not at all	6	7	
I find my present physical workload stressfull			
Very	1	14	
Rather	39	34	
Not very	58	45	
Not at all	1	7	
My job has a negative impact on my social situation or family life			
Much	10	11	
Rather much	25	27	
Some	48	45	
Not at all	18	17	
My job has a negative impact on my leasure time			
Much	8	9	
Rather much	22	24	
Some	52	49	
Not at all	18	17	
My general health today is:			
Very good	37	40	
Rather good	60	48	
Less good	3	11	
Not good at all	0	1	
My place of work has a prevalence of very sick and dead persons that is:			
Too high	0	3	
Very high	22	23	
High	16	39	

I find my present mental workload stressfull	**Ambulance**	**Emergency**	**Diff.**
Rather high	38	27	
Rather little	21	8	
Little	3	1	
I find taking care of acutely ill patients with high risk of dying to be:			
Very stressfull	8	7	
Rather stressfull	37	49	
Not so stressfull	44	39	
Not stressfull at all	11	5	
I find taking care of relatives and bereaved people to be:			
Very stressfull	18	21	
Rather stressfull	53	57	
Not so stressfull	27	22	
Not stressfull at all	2	0	
I make too rapid and radical actions at my job all by myself			
Yes, always	9	6	
Yes, often	35	49	
No, less often	46	40	
No, seldom	10	6	
How do you find your present job from a financial perspective?			
Satisfactory	2	1	
Rather satisfactory	32	21	
Less satisfactory	46	3	
Not at all satisfactory	21	41	
I experience too high time pressure in my job			
Yes, always	3	11	***
Yes, often	30	65	
No, less often	56	21	
No, seldom	11	3	
I experience lack of resources at my workplace			
Yes, always	13	17	
Yes, often	54	60	
No, less often	27	19	
No, seldom	6	4	
Do you find that you can provide satisfactory care of severely ill people?			
Yes, definitively	41	16	***
Yes, rather much	59	72	
No, not very much	0	12	
No, not at all	0	0	
Have you been at sick leave the latest year because of too a heavy work load?			
Yes, much	0	0	
Yes, to some extent	0	1	
No, not much	9	7	
No, not at all	91	92	
I feel insecure about the result of my care for very ill people.			
Yes, very often	2	1	
Yes, often	18	21	
No, seldom	71	63	
No, never	10	15	
Do you belive that you have any influence on your work load?			
Yes, much	2	1	*
Yes, rather much	7	23	
No, not so much	49	48	
No, not at all	42	27	
Do you feel that your team management is well informed with your work?			
Yes, very much	11	12	
Yes, rather	43	43	
No, not so much	30	35	
No, not at all	16	11	
Do you think that care professionals in general get used to working with a high prevalence of severely ill, dying and deceased patients?			
Yes, absolutely	16	16	
Yes, rather much	59	63	
No, not very often	25	20	
No, never	0	1	
Have you yourself got used to working with a high prevalence of the severly ill, dying and deceased?			
Yes, absolutely	23	25	
Yes, rather much	66	64	
No, not much	7	8	

I find my present mental workload stressfull	Ambulance	Emergency	Diff.
No, I never will	5	3	
Do you experience high demands at your work place?			
Yes, too high	2	11	
Yes, rather high	79	73	
No, not so high	14	15	
No, not at all high	5	1	
How do you find the implementation of quality of care at your work?			
High	21	8	**
High, but not optimal	71	71	
Rather low	6	16	
Unsatisfactory	2	5	
Is there a risk for you to have to change work-assignments due to today's workload?			
Yes, high risk	5	9	
Yes, rather high risk	24	28	
No, not so high risk	44	41	
No, no risk at all	27	21	
Would more specific care programs favour your work situation?			
Yes, absolutely	48	27	
Yes, possibly	32	53	
No, hardly not	21	20	
No, not at all	0	0	
Are such programs applied at your work?			
Yes, they exist and are fully used	32	13	*
Yes, they exist but are not fully used	61	73	
Yes, they exist but are not used	3	10	
No, there are no such programs	3	4	
Are there support programs for the personnel at your workplace?			
Yes, explicit	8	9	
Yes, rather explicit	33	34	
Not so explicit	43	45	
No, they do not exist	16	13	
If Yes, are they used?			
Yes, always	0	11	
Yes, often	53	30	
Seldom	40	50	
Never	8	9	
Do you yourself get the support and debriefing that you think you need?			
Yes, always	42	31	
Yes, but not enough	16	35	
No, not suffuciently	23	23	
No, not at all	19	12	
Is there anything you would like to change at your job in order to be able to work with satisfaction and confidence?			
Yes, very much	24	16	
Yes, rather much	51	47	
No, not so much	22	36	
No, nothing	3	1	
If Yes, name what! See results in table II			
Have you been offered further education or courses?			
Yes, often	3	5	
Yes, rather often	44	40	
No, not often	40	45	
No, never	13	9	
If No, what would you prefer? If, YES, name what. Please, see results in table II			
How is your experience of the possibilities for you to advance at your work place?			
Good	2	1	
Rather good	18	26	
Not so good	52	55	
Not good at all	29	18	
How do you find the team composition at your job?			
Well fitting	19	10	
Rather well fitting	73	72	
Not very fitting	5	18	
Not at all fitting	3	1	
How do you find your leadership at work?			
Very good	8	10	*
Rather good	30	39	
Less good	29	43	

I find my present mental workload stressfull	Ambulance	Emergency	Diff.
Not good at all	33	8	
How do you find the support offered to bereaved relatives of the patient?			
Very good	1	11	***
Rather good	27	54	
Less good	33	20	
Not good at all	16	7	
Does your job place have routines for literary recommendations to the bereaved (pamphlets and information leaflets)?			
Yes, very satisfactory ones	5	41	***
Yes, but not satisfactory	23	50	
No, rather unsatisfactory	30	7	
No, none at all	40	2	
Do you think it is important to have personal characteristics fitting for the job?			
Yes, very	65	51	
Yes, rather	32	48	
No, not very	2	1	
No, not important at all	2	0	
Do you think it is possible to get used/accommodated to the prevalence of death and grief in your profession?			
Yes, absolutely	24	24	
Yes, rather possible	67	57	
No, not very possible	8	16	
No, not possible at all	2	3	
To what extent do you think that personnel themselves are affected by death and dying?			
Very high extent	5	11	
High extent	49	42	
Rather high extent	44	47	
Little	0	0	
To what extent will the job satisfaction and well-being be influenced by death and dying?			
Very much	12	7	
Much	39	45	
Rather little	48	45	
Not at all	2	3	
Do you think that further education would improve job satisfaction?			
Yes much	44	46	
Rather much	36	36	
Rather little	16	18	
Not at all	4	0	

* Refers to $p<0.05$, ** refers to $p>0.01$, *** refers to $p<0.001$, significant difference between the two study groups

Rather few respondents in both groups found explicit personnel support programs or manuals at work, and when so, they were seldom fully used. The majority also wished for changes at their workplace to be able to work with satisfaction and safety, including being offered debriefing and further education. The possibilities for advancement at work were experienced to be low or non-existing among over 70%. Many found the management/leadership to be less informed and good, especially among the ambulance workers ($p=0.0160$), but found on the other hand the composition of the team fit for the care situation. Personal suitability for the job was considered necessary by almost all. The majority also thought that it was possible (for themselves and other care professionals) to get used to a job with dying, dead and grieving, but about half of them thought that wellbeing was negatively affected by patients' deaths. The workload also seemed to influence the social situation and leisure time to a substantial degree.

The majority of the responders still reported good or rather good health, and had not been on sick leave due to excessive workload. Lack of influence on their own workload was, however, substantial and also reported by more people working at the emergency rooms ($p=0.0376$). Lack of resources at work was also commonly reported. Both groups found the demands at work equally high. However, ambulance workers found their quality of care better as compared with emergency room personnel ($p=0.0083$). One in five employees felt insecure/uncertain about the result of their care among very ill people.

In total, more women than men in both ambulance and emergency rooms considered their mental workload as straining (57% and 44% respectively, $p=0.0073$), but more men than women reported the physical workload to be straining (63% and 38%, respectively, $p=0.0468$). One third of all personnel felt that they had to provide too rapid and radical care on their own, and almost half of them had the impression that their work management were not particularly or not at all updated on the care that their staff performed. Few were very satisfied with their salary.

Among factors rated most positively experienced, the personnel at both ambulance and emergency rooms reported their working partners, colleagues, and the team as a whole. Personnel at the ambulance found freedom (under responsibility), challenge, variation and excitement frequently mentioned. These variables were "rather frequently" named among the emergency room personnel, where caretaking, saving lives, meaningfulness, and grateful patients were common words of honor.

Among the ambulance workers, the factors generally critical for becoming worked-out and sick leave at the investigated work areas were physically high workload and physical damage, mental stress (specially at children trauma), shift- and night work. The emergency room personnel mostly named stress and high tempo, low quality of their mental and physical work situation, inconvenience regarding shift and weekend work, high flow of patients, and a lack of competent personnel.

Many mentioned a lack of leadership and resources, too little time for debriefing and recovery, crisis support, and guidance as generally critical factors. These critical factors were often also reported as personally experienced ones, as long and irregular shifts, lack of time for sleeping and eating, unclear management with substandard communication and feedback, lack of credit as well as support.

About half of the ambulance and emergency room workers found it "very" or "rather" stressfull taking care of patients at high risk of dying. About seven out of ten among both ambulance and emergency room personnel also found it stressful taking care of relatives and bereaved persons. "Good" or "rather good" bereavement support was reported by more emergency room workers, and these had better routines for recommendations to the bereaved, e.g. through pamphlets and information leaflets, compared with workers at the ambulance (p=0.0000). However, half of the acute workers were not fully satisfied.

Table 2. *Ranking of factors that could improve the endurance at the present job*

Ambulance workers' ranking list
1. Shorter working hours
2. Longer vacation leave
3. Less shift work
4. Alternative team constitution
5. Miscellaneous
6. Raised salary
7. Improved management
8. Clearer work duties
9. Greater individual influence
Emergency room personnel's ranking list
1. Shorter working hours
2. Longer vacation leave
3. Less shift work
4. Raised salary
5. Improved management
6. Clearer work duties
7. Greater individual influence
8. Alternative team constitution
9. Miscellaneous

When ranking factors critical for coping at work, most of the employees at both ambulance and emergency rooms named shorted working hours and longer vacation leave as number one and two, respectively (Table 2). Salary and other working schedules were other improvements asked for. Better team leaders, increased influence and better routines were also factors asked for. Other wishes were more personnel, plans for prioritations, less work on holidays, higher physician competency around the clock (more trained doctors in acute medicine), time for physical training, increased professional knowledge, and more ambulance driving training.

4. Discussion

The results provided us with a picture of acute caretaking among ambulance and acute emergency personnel in every-day dealing with death and dying, stress, perceived control, understaffing, and coping. Like other researchers in this area (11, 14, 20, 26, 27) we found a variety of self-reported stressors and needs in coping to reduce e.g. work-based stress, personal inner strength, organizational arrangements, emotional exhaustion, and feelings of lack of personal accomplishment. Identification of such factors might help to reduce levels of experienced stress and exhaustion. Employees at risk for burn out in our study seemed to be few, as the reports on sick-leave were little, the respondents' health were generally good, and both adaptation to and personal characteristics to meet dying and dead people seemed adequately present in both ambulance and emergency room personnel.

Gender differences existed for both study groups. More women complained of mental stress while more men found physical stress hard to handle. On the other hand, the reported differences between the groups were rather few. The emergency room personnel, who also reported a higher number of severely ill and dead persons, and dissatisfaction with their work performance and quality, seemed to suffer from a lack of time to follow the unit care programs.

Both occupational groups were faced with death exposure, however, to a different extent due to the prevalence of dying and dead arriving at the intake of the hospital. Heavy workload, poor staffing, frequent dealing with death and dying, inter-staff conflicts, strain of shift work, careers, and lack of resources and organizational support have been identified as major sources of job stress in this study like many other investigations among emergency services personnel (14). Mental preparation is said to be important before the arrival at the scene of the accident, but was not studied here. In our study the personal suitability for the job seemed on the other hand rather well accounted for.

The mental health and emotional well being of ambulance personnel appear to be compromised by accident and emergency work. Marmar and co-workers (6) stated that rescue workers who are shy, inhibited, uncertain about their identity, or reluctant to take on leadership roles, who believe their fate is determined by factors beyond their control, and who cope with critical incident trauma by emotional suppression and wishful thinking, are at a higher risk for acute dissociative responses to trauma and subsequent posttraumatic stress disorder.

Nursing professionals working in emergency care often suffer from physical symptoms according to Farias and coworkers (12). According to the workers in their study, pain always resulted from emotional stress or appeared after providing emergency care, which suggests that the workers

find it very difficult to differentiate physical from mental stress. In our study mostly men at the ambulance complained about physical workload, however, not being further studied if this relationship also existed here.

According to many studies (7, 20, 26) emergency room personnel are at risk to develop health symptoms due to work related stressors. Although, acute stressors are related to health symptoms, such as fatigue, burnout, and post-traumatic symptoms, they have not been found to predict health symptoms in a long-term perspective (20). Main risk factors have to do with social aspects of the work environment, e.g. lack of support from the supervisor and colleagues as well as poor communication. Workplace interventions should take these social aspects need into account.

In our study health was generally reported to be good, contradicting several other findings among paramedics. Hegg and co-workers (28) found that paramedics accumulate a set of risk factors, including acute and chronic stress, which may even lead to a development of cardiovascular diseases. However, their employers used no inquiry or control methods to monitor the workers' health status and cardio-respiratory fitness. Alexander and Klein (29) concluded that the mental health and emotional well being of ambulance personnel appear to be compromised by accident and emergency work. More studies are needed to characterize paramedics' behaviour at work. These studies could allow the development of targeted strategies to prevent health problems reported in paramedics.

The age of the responders and the years of work did not predict work overload and stress in our study. However, in a study of Craig and Sprang (7) age and years of experience proved to be powerful predictors with younger professionals reporting higher levels of burnout versus more experienced providers endorsing higher levels of compassion satisfaction. According to a study by Nirel and co-workers (26) it seems to exist a need to reconsider the optimum length of service in the paramedical profession to counteract burnout, and a need to form organizational arrangements to change the work procedures of aging paramedics. This might support our findings of needs for shorter working hours and longer vacations to balance out straining shift work. To be too tired to work might constitute negative effects caused by the effects of working with emergency care (9).

Most of the ambulance and emergency room workers in this study (with many years in the field) had been confronted with accumulative acute stressors, being overburdened and understaffed in the intensive care unit. However, despite frequently reporting job strain and mental stress, e.g. including lack of time, poor support and leadership, left on one's own with radical decision-making, not being informed about important decisions, and general high demands, surprisingly few had not been on sick leave caused by too high a workload. This stands in stark contrast to many other studies on high psychological demands, emotional exhaustion, and cumulative exposure to stress sometimes leading to PTSD (27, 29-32). It could be that few responders had experienced a particularly disturbing incident in the previous six months, which is said to be predictive for severe consequences at emergency work. Furthermore, recognising signs of burnout taking the assessment form for PTSD was not the main purpose of our study, as in several studies on emergency workers studying e.g. the effects of work trauma in longer or shorter terms of time elapse (33). In general, post-trauma activities should include individual follow-up debriefing, e.g. to counteract stress disorders. In our study groups the need for better debriefing routines and support programs were emphasized. The endurance at work in our two-study-groups could also be partly explained by not knowing anything about the situation of the non-responders for comparison of endurance.

Poor or hindering communication with the staff leader might be balanced by debriefing within the team and colleagues to rely on and communicate with and receive support from (34). According to Jungert (35), colleagues motivate their co-workers better than the management. He found that the importance of the team is based on critical factors as feeling competent, being autonomous and feeling related to others in the team. These findings seemed to yield also in our study, many reporting good health, very little sick leave, and no thoughts of quitting their present job, although perceiving them to be poorly paid. Clinical handover of patients between two organisations – ambulance and emergency room workers - with somewhat different cultures and backgrounds may need improved strategies through e.g. shared training programmes (22).

Interesting findings were the similarities in both study groups in regards to ranking improvements in favour for higher job satisfaction, and preferably focusing on shorter working-hours, longer vacation leaves, more satisfactory planned shift schedules, increased salary and improved management.

Several studies have underlined the importance of feedback from the management and acknowledgment for a job good made (36). This was also frequently wished for by responders in our study. This lack of positive support och acknowledgement from the management might have been counterbalanced among the respondents in our study by credit from colleagues and relatives to patients, as well as their own inner feelings of satisfaction with their work-performance. The common wish for greater individual influence at work might also meet the criteria of acknowledgement from the staff management.

Perceived job control, self-efficacy, self-esteem, perceived unit efficiency, clearer work duties, increased salary, improved management, influence at work, acceptance of death attitude, more leisure time, and non-conflicting family interests could reduce the effect of job strain on risk of personal burnout in this study as in line with the results of several other studies on the subject (14, 20, 37, 38). In addition, education and training could certainly help professionals at the ambulance and emergency rooms to further deal with coping. In our study, there existed frequent demands on increased education and training, as this

probably also would increase possibilities for career advancement. Organizations should support professionals especially when it comes to children and trauma (34, 39, 40).

Bereaved subjects should be met with more caring facilities, including support and follow up by personnel as well as pamphlets to take home after being faced with a traumatic experience. A good example of this was performed at the emergency room at the Uppsala University Hospital in Sweden a few years ago. At the emergency room, the ambulance staff was greeted at the intake by a nurse assistant specially trained and focused on providing support to close relatives of the patient during the acute phase and afterwards up to two months post loss (41). In order to meet patients' psychosocial needs effectively, researchers in the field (4, 42, 43, 44) state that emergency workers should be offered psychosocial training in a number of skills for their own psychosocial support to be enhanced. Palliative care, meaning a "good death," free from pain and suffering for the patient and the patient's family would seem to have little to do with acute care delivered in a setting such as the emergency department. Less suitable predispositions might also have been present for our study groups, especially finding mental stress to be significantly related to reports on working with many dying persons. Not having enough personnel, time, routines, and equipment could result in an increased feeling of dissatisfaction with work performance and outcome, and left the workers with stress both at work and in private life.

Several critical factors seemed important for job satisfaction among Swedish ambulance workers and personnel at the emergency rooms. Complaints about psychological stress, physically high workload, physical damage, many working hours, low salary, much shift- and night work, better vacation leave, more resources, too little time for recovery, crisis support and guidance, better routines, more explicit care programs including improved bereavement support for relatives, better possibilities for job control, self-efficacy, unit efficiency, and clearer work duties, and a family-non-conflicting job situation could favour work performance in both groups.

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