

Emotional strain, burnout among health care workers

Ph.D. Theses

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INTRODUCTION

The work stress related somatic and psychological vulnerability of Hungarian health care workers was demonstrated in several studies. These studies emphasise the high prevalence of physical and psychological symptoms occurred as the result of chronic stress in the above mentioned population. In the past decades the study of burnout syndrome (state of physical, psychological, and mental exhaustion consequent upon lasting interpersonal and emotional stress, loss of will to care and decreased capacity for empathy) received more attention both on national as well as international level. Burnout affects the whole personality. In the 1970s and 1980s the concept of burnout was used exclusively among helping professionals, thus the group of health care workers has been in the centre of attention since the beginnings. Researchers managed to identify several individual and environmental factors that may serve as causes for burnout: age, family status, resilience, external control, passive and conflict-avoidant coping, low self-esteem, individual factors predisposing to neuroticism. Development of symptomatology is influenced by job characteristics (quantitative and qualitative load, lack of social support, lack of feedback, low participation in decision-making, lack of autonomy), the nature of occupation (long term intensive care of others) and properties of the organisation defined by social, cultural and economical factors (hierarchy, operational regulations). Today's burnout research is greatly facilitated by theories explaining work stress (see the model of Siegrist, Karasek). Using Karasek's job demands control model as a point of departure, the research group of LeBlanc and DeJonge draws the attention to the emotional job demands. Health care workers are at high risk for emotional exhaustion resulting from interaction with clients. Emotion work indicates the quality of social interaction between caregiver and client. Our interpretation of emotion work is based on the definition introduced by Zapf and his research group, according to which emotion work is the regulation of emotions expected from the employee to show appropriate emotions towards clients as required by the employer.

We centred our studies around the caregiver-client interaction, and with the help of validated measures we rendered measurable the main dimensions of emotion work: emotional regulation requirements in Hungary, regulation possibilities and regulation problems.

In the health care workers' group we considered apart the group of employees working in psychiatric-psychotherapeutic settings, while the rest of health care workers formed the control group. The health behaviour and life style of employees working in psychiatric-

psychotherapeutic settings proved to be worse than that of physicians or other qualified workers employed in other health care sectors. Our hypothesis was that there is a special form of emotion work involved in the course of providing psychiatric-psychotherapeutic services: meetings with the clients do not follow a certain script as in other health care sectors, and the meetings are on the one hand longer, on the other hand they may continue over a long period of years or decades. It is a health care sector where empathy towards others is a basic job requirement. Our aim was to understand the damaging and/or protective role of the worker-client relationship in the development of burnout. We were also interested in whether, in comparison with other groups, health care workers dealing with the severely ill are more prone to burnout, whether they perform more significant emotion work, whether there is a distinct coping strategy they use or if there are any differences related to their social support. When providing for the dying, the emotional instability of patients, their anger management, rejection of treatment, talking about bad prognosis, communication with the bereaved can cause great difficulties. These difficulties may trigger mixed feelings in health care workers who are not allowed to show their true emotions. Results may lead us to a better understanding of the role of the emotional aspect of the caregiver-client interaction in burnout and emotional job demands.

AIMS:

- I. The main aim of our 2005 study conducted among health care workers was to test the instrument (N= 70). We used open questions to elicit answers regarding job requirements, and we attempted touch upon demands, both quantitative (physical job demands) and qualitative (emotional job demands). We aimed at finding relationships between burnout, coping and social support.
- II. The aim of our 2006-2007 research was to develop the Hungarian version of the Frankfurt Emotion Work Scale, respectively to reveal the inner structure and analyse the psychometric properties of the scale (N= 327).
- III. The main aim of our 2008 study conducted among health care workers (N= 199) was to analyse regulations in display of emotions (emotion work dimensions) arisen in the course of caregiver-client interaction, respectively explore the relationships of burnout to emotion work, coping and social support. We were interested in how these relationships vary in different health care groups (formed by health care sectors, respectively occupations).

On the whole we attempted to find an answer to several questions: Which variable have an impact on burnout? Is it worth taking into account the characteristics of the health care sector and the profession in the course of intervention work?

HYPOTHESES

(a) Our hypotheses related to health care sectors were the following:

H1 Burnout syndrome occurs in different degrees among health care professionals working in various health care sectors (psychiatry-psychotherapy, oncology-hospice, other)

H2 Health workers employed at psychiatric-psychotherapeutic settings are more likely to be emotionally exhausted and they are less likely to treat the patients as objects than those working in other health care sectors.

H3 We hypothesize that health care workers dealing with the severely ill would score higher on emotional dissonance.

(b) Hypotheses related to status/profession:

H4 From the aspect of various variables we expected differences between the groups of physicians-psychologists and nurses-medical assistants. We hypothesized that there is less social support at work among nurses, they use emotion-centred coping more frequently, psychosomatic symptoms are prevalent among them, they would give account of lower regulation possibilities (emotion and interaction control) and higher emotional dissonance than the group of physicians-psychologists.

H5 We expected to find a difference in burnout indicators between psychiatrists and psychologists, hypothesizing that psychiatrists suffer a greater degree of burnout.

(c) Hypotheses related to factors influencing the burnout syndrome:

H6 We hypothesised that educational level, gender, age, and years of experience do not influence the development of burn-out, in contrast to working hours, marital status and emotion regulation related requirements (display of positive, negative emotions, requirements related to sensitivity and sympathy), regulation problems (emotional dissonance), which contribute to the development of the burnout syndrome.

H7 Social support acts as protective factor in the development of burnout. Health care workers showing higher degree of burnout would report lower social support. We hypothesized that taking into account the social network social support received from co-workers would have the most decisive role from the aspect of burnout.

H8 Emotional dissonance is the most important dimension of emotion work. Health care workers scoring high on burnout would report higher emotional dissonance.

METHOD

All three research studies were quantitative cross-sectional studies. Sociodemographic factors, job and health status related variables, burnout, coping, emotion work and social support were measured with questionnaires.

- I. The survey was conducted by random sampling at two different specialist's consultations provided in the health care institution of a provincial town, respectively hospital ward. Out of the 70 health care workers included in the study (response rate 46%) 57 were workers in psychiatric-psychotherapeutic settings, respectively 13 were employees in cardiology units. The sample was composed of nurses (52%), psychologists (19%), physicians (13%), health pedagogists, pedagogists (6%), others (10%) (including patient transporters, employers). The average age was 40.24 (SD= 12.14), years of professional experience was an average of 15 years. Of respondents 17.6% were male, 82.4% female. Data collection was effectuated at the end of 2005 based on a voluntary participation in the questionnaire survey. Our main aim was to test the measuring instrument thus applied. The questionnaire items explored sociodemographic variables, psychosomatic complaints, issues related to life style and creativity, and work related data. Burnout was measured with the help of the Maslach Burnout Inventory (HSS), coping with the shortened version of the Ways of Coping questionnaire, social support with the Caldwell Social Support Scale.

- II. The Hungarian adaptation of the Frankfurt Emotion Work Scale was realised in the winter of 2006-2007. We investigated the discriminant validity of the scale with the shortened Beck Depression Inventory. Taking into account that the scale was developed for service providers, we included bus drivers (N= 281) and pedagogists (N= 46) in the study when developing the Hungarian version. The average age of bus drivers was 45 (SD= 9.9). Their level of education was relatively low: 0.4% reported less than 8 primary classes, 10.4% completed only primary school, 49.3% were qualified as skilled workers, 36.9% completed secondary school and 3% had

university degree. Most of the respondents were male. The pedagogist group was involved in our study due to the fact that our interest was directed to humanistic professions on long term, and we assumed that the questionnaire could be used successfully also in that group. The average age of pedagogists was 33 years (SD= 10.07). Their level of education was considerably higher, most of them had a university degree or attended university. According to gender, there were 35 female and 9 male participants in the study among pedagogists.

III. The 2008 survey among health care workers included 199 respondents (response rate 30.42%). The average age was 42.33 years (SD= 12.50). In the sample 83.40% were women, 67.2% had university education, 9.6% had post secondary degrees, 20.7% completed secondary school, 2.5% had skilled worker certificate. Their distribution according to health care sector: 33% workers in psychiatric-psychotherapeutic settings, 24% in oncology-hospice units, 42.7% in other health care departments. From professional aspect 30.7% are physicians, 31.7% nurses, 8.5% psychologists, 6.5% medical assistants. Data collection started in December 2007 and was completed in October 2008. Health care workers were contacted in various ways with the request to participate in the study: some respondents were reached through the researcher's personal contacts, others at professional trainings. Questionnaire packages were also distributed at national conferences among health care workers. Thus, apart from contacting hospitals, clinics and specialists' consultations, we also tried to involve in our study the conference participants of the Psychotherapy Conference in Szeged and the Annual Congress of the Hungarian Hospice and Palliative Association. These questionnaires were handed out as part of the conference package and the completed questionnaires were gathered in a box designed for this purpose, thus ensuring anonymity. Besides sociodemographic questions, we also used work and health related questions, respectively the Maslach Burnout Inventory HSS, the shortened Ways of Coping questionnaire, the Caldwell Social Support Scale and the Hungarian version of the Frankfurt Emotion Work Scale.

RESULTS

I. The results of our first study directed our attention to the emotional exhaustion component of burnout. This was the dimension along which the most severe picture was depicted by the respondents. Examining the relationships between variables, we found that the more exhausted the workers are, the more likely they are to choose the non-adaptive forms of emotion-centred coping strategies ($r_{\text{Spearman}} = 0.421$ $p \leq 0.01$), and less likely to opt for problem-centred coping methods ($r_{\text{Spearman}} = -0.327$ $p \leq 0.01$). This correlation can be found in connection with the depersonalization dimension of burn-out, indicating that those who self-reportedly treat their patients as objects more frequently use emotion-centred coping mechanisms ($r_{\text{Spearman}} = 0.519$ $p \leq 0.01$) than problem-centred ones ($r_{\text{Spearman}} = -0.296$ $p \leq 0.05$). Within their social network support received from co-workers was of great importance. According to the results this support has shown significantly negative correlation with emotional exhaustion ($r_{\text{Spearman}} = -0.298$ $p \leq 0.05$) and depersonalization ($r_{\text{Spearman}} = -0.300$ $p \leq 0.05$), and significantly positive correlation with personal accomplishment ($r_{\text{Spearman}} = 0.323$ $p \leq 0.05$). We found the following significant differences when comparing the groups of nurses and physicians-psychologists: among nurses depersonalization was significantly higher ($Z = -2.385$ $p \leq 0.05$), problem-centred coping was lower ($Z = -3.282$ $p \leq 0.01$), and emotion-centred coping ($Z = -1.922$ $p \leq 0.10$) more frequent. As possible resource the nurses enjoy less the benefit of social support (parents $Z = -2.538$ $p \leq 0.05$, schoolmates $Z = -2.082$ $p \leq 0.05$, friends $Z = -2.484$ $p \leq 0.05$, colleagues $Z = -2.140$ $p \leq 0.05$, relatives $Z = -2.270$ $p \leq 0.05$, helping professionals $Z = -4.793$ $p \leq 0.001$, church $Z = -2.969$ $p \leq 0.01$).

II. In our second study we developed the Hungarian version of the Frankfurt Emotion Work Scale and we examined its psychometric properties.

In order to analyse the factor structure we performed a factor analysis, which resulted in 18 factors accounting for a total of 68.2% of the variance. As second step we wanted to confirm the original 11 factors developed by the authors. The confirmatory factor analysis supported the 11 factor model, but in comparison with the German outcomes the factor structure has changed, which accounted for a total of 54.8% of the variance. The following original German subscales were confirmed in the whole sample: *Display of Positive Emotion*, *Display of Negative Emotion*, *Display of Neutral Emotions*, *Emotional dissonance*, *Extent of Client Contact*. Some subscales could be differentiated only within

certain occupational groups: *Display of Certain Emotions* in the pedagogist group, and *Norms regarding Emotions* in the bus driver group. In the Hungarian studies we did not manage to differentiate from one another the subscales of *Demands for Sensitivity* and *Emotional Sympathy* as far as the whole sample as well as the occupations are concerned, because these items fell into the same factor and their reliability indicators can only be accepted this way. Another interesting result was that in all three cases – in the whole sample and in the occupational groups, too – displaying sympathy fell into the Display of Positive Emotion factor, thus suggesting that Hungarian bus drivers and pedagogists give positive meaning to the display of sympathy. For all scales we obtained higher reliability indicators if we used the Hungarian factor structure.

III. In our third study the hypothesis that health care workers in different health care sectors experience burn-out to a different degree was not confirmed. According to our second hypothesis we did find tendency-like difference ($Z = -1.695$ $p = 0.09$) between health care professionals working in psychiatric-psychotherapeutic settings and the control group as depersonalization is concerned. The greatest difference was found in emotion work among those working in different health care sectors. Differences between health care professionals working in psychiatric, oncology, hospice sectors and other health sectors was found only in regulation requirements (Display of Negative Emotion $F = 3.164$ $p \leq 0.05$, Sensitivity-Sympathy $F = 8.404$ $p \leq 0.001$, Display of Neutral Emotions $F = 4.398$ $p \leq 0.05$). Our hypothesis related to emotional dissonances was confirmed with $p = 0.054$ level of significance ($Z = -1.886$). In comparison with physicians and psychologists, nurses reported higher emotional dissonance ($Z = -2.543$ $p \leq 0.05$), lower interaction control ($Z = -2.020$ $p \leq 0.05$), lower emotional control ($Z = -3.194$ $p \leq 0.001$), thus confirming our hypothesis (H4).

The group consisting of nurses and medical assistants have a different view on regulation requirements: they feel that in comparison with their physician colleagues they need to display negative emotions less frequently in the course of their interaction with clients ($Z = -2.122$ $p \leq 0.05$), and they have to show their understanding or tune in to patients less frequently ($Z = -2.452$ $p \leq 0.05$).

When comparing the groups of nurses-medical assistants and physicians-psychologists, we found no significant difference in coping or in perceived social support from co-workers.

With the help of the multi-variable linear regression analysis we explored the variables that influence the various components of burn-out. The analyses delineated that on the one hand different variables connect to different dimensions of burnout, and that their impact varies. The scores of *emotional exhaustion*, the stress component of burnout, is influenced by age ($\beta = -0.453$ $p \leq 0.001$), professional experience ($\beta = -4.114$ $p \leq 0.001$), nature of health care sector (oncology $\beta = -0.211$ $p \leq 0.01$, psychiatry $\beta = -0.140$ $p \leq 0.05$), number of clients ($\beta = 2.082$ $p \leq 0.05$) and illness ($\beta = -0.184$ $p \leq 0.05$). The following factors were found to relate significantly to the dimension of depersonalization: age ($\beta = -0.181$ $p \leq 0.05$), professional experience ($\beta = -2.735$ $p \leq 0.01$), number of clients ($\beta = 2.154$ $p \leq 0.05$) and illness ($\beta = 0.216$ $p \leq 0.05$), while level of education ($\beta = 0.232$ $p \leq 0.05$) and number of psychotherapeutical hours ($\beta = -2.136$ $p \leq 0.05$) significantly correlates with personal accomplishment.

Following the analysis performed in the whole sample and in sub-groups we found significant correlation between *emotion work* and burnout. Among examined variables the emotion work scores are far the most significant. Among oncology unit workers emotion work has a great explanatory value from the aspect of burnout scores. This was the only field where the scores of the three subscales of burnout can be explained to a great extent (45-50%) by emotion work scores. Similarly, in the group of physicians-psychologists 40% of the variance was explained by emotional exhaustion. In the case of workers in psychiatric-psychotherapeutic settings emotion work significantly influenced the scores obtained on the depersonalization scale. ($R^2 = 0.44$).

Coping proved to be a determining factor in all components of burn-out. The non-adaptive forms of emotion-centred coping had an impact on the emotional exhaustion ($\beta = 4.251$ $p \leq 0.001$) and depersonalization ($\beta = 3.351$ $p \leq 0.001$) components, while problem-centred coping influenced the dimension of personal accomplishment ($\beta = 5.318$ $p \leq 0.001$). Perceived social support did not prove a determining factor in burnout, therefore we continued our analysis item by item. At this point the perceived social support from co-workers was brought to relief anew, reinforcing its central role confirmed previously: social support received from colleagues had an impact on all three components of burnout (emotional exhaustion $\beta = -1.996$ $p \leq 0.05$; depersonalization $\beta = -2.061$ $p \leq 0.05$; personal accomplishment $\beta = 2.232$ $p \leq 0.05$). Thus we may say that perceived social support from co-workers is a protective factor.

NEW RESULTS

1. *Emotional dissonance* has an impact mainly on emotional exhaustion ($\beta=0.352$ $p\leq 0.001$) among burnout dimensions, depersonalization is influenced by regulation requirements related to *Display of Negative Emotions* ($\beta=0.329$ $p\leq 0.001$), while personal accomplishment is influenced by regulation requirements related to *Display of Positive Emotions* ($\beta=0.305$ $p\leq 0.01$).
2. As far as the relationship of *coping and burnout* is concerned results show that the use of problem-centred strategies do not necessarily proved protective from the aspect of *emotional exhaustion*.
3. In connection with social support as a form of *coping* the *perceived social support from colleagues, co-workers* can be defined as protective factor from the aspect of burnout development.

LIMITATIONS

We need to emphasise that due to the cross-sectional nature of our three studies we cannot establish causal relationships among variables from the outcomes. We have not worked with a representative sample, therefore our statements cannot be applied on the general population, namely on all Hungarian health care workers. These results rather indicate directions for future research. Another limitation derives from the small number of respondents included in our studies, which can affect the outcomes when comparing sub-groups. At the same time it must be mentioned that research studies rarely attempt to compare several occupational groups, especially when examining the relationship of emotion work and burnout. The strength of our studies is that we worked with validated questionnaires, which are measures accepted and acknowledged on international level. We have been the first ones to investigate the issue of emotion work with a validated questionnaire in Hungary, and this questionnaire was adapted to Hungarian conditions by our research group.

Our work is the first detailed survey in Hungary analysing the role of emotion work in the burnout of health care workers, with special focus on emotional dissonance.

CONCLUSIONS

The answer to our main research question, namely whether it is worth taking into account the properties of the health care sectors in the course of prevention and intervention work, is a

definite yes. Despite the lack of significant difference in burnout indicators in the examined groups, the factors play different roles in the development of burnout and have different impact considering the various occupational groups.

Our results showed, that

1. Greater attention must be paid to young health care workers as they are a high risk group from the aspect of burnout. Burn-out prevention should be launched in graduate training by professional personality development, accurate description of the role of professionals, clarification of work requirements of health care professionals with special emphasis on emotional requirements.
2. Further training, lifelong learning, adult training, promoting self-development are all very important as high level education is associated with higher personal accomplishment and thus lower burn-out.
3. As far as work related factors are concerned, the number of clients, patients, the number of psychotherapeutic hours and the nature of health care sector was brought to relief. Positive correlation has been shown between the number of clients and burnout, i.e. quantitative provision enhances the development of symptomatology affecting our physical-psychological-social health. The average time we spend with one patient is important from the aspect of emotional exhaustion and depersonalization. This may be connected to quality patient care, the intrinsic aspects of work and meaning of work. From the aspect of emotional exhaustion working in oncology units or psychiatric-psychotherapeutic settings proved as predictive factor.
4. We were the first to investigate the impact of emotion work on burnout in Hungary. Including emotion work in burnout research proved very useful: emphasises the caregiver-client interaction, and in this framework the communication of emotions, respectively highlights congruence. According to our findings the impact of emotion work on the various dimensions of burnout differs, its power to explain burnout differs according to occupational groups and health care sectors. It can be formulated as a general outcome that emotional dissonance defined as regulation problem has a key role in the development of burnout. It seems that the stress component of burnout (emotional exhaustion) correlates with the stress component of emotion work (emotional dissonance), while the two other aspects of burnout are associated with regulation requirements. The role and predictive value of emotional dissonance varies according to health care sectors and occupation. Thus it draws our attention to those

sector specific and profession specific points that should be taken into account when developing prevention and intervention programs. The focus in case of nurses should be stressors, emotional dissonance, while in case of physicians and psychologists it should be work requirements, display of negative and neutral emotions and their regulations. Our study reinforced the positive impact of regulations related to the display of positive emotions by increasing self-efficacy. At the same time it highlighted the importance of regulations related to the display of negative emotions in caregivers' interaction with clients from the aspect of depersonalization.

5. The development of coping skills is very important in coping with chronic stress: the problem-centred coping contributes to personal accomplishment, yet at the same time the non-adaptive emotion-centred coping contributes to emotional exhaustion and to the higher scores of depersonalization. i.e. It points out that reflecting on problems and active participation does not necessarily provide protection as far as emotional exhaustion and depersonalization is concerned. Moreover, according to some researchers if our problem solving attempt is not succeeded by a visible outcome it can lead to further stress.¹³ Therefore, when health care workers receive coping skills development training, their attention must be drawn to the fact that it is worth working through their own emotions, especially the tensions resulting from their negative emotions, by applying adaptive emotion-centred coping strategies. According to our findings related to differences in occupation and health sector show it would be advisable to adapt coping skills development trainings to the respective target group.
6. Perceived social support is an important factor from the aspect of coping. The outcomes confirm the determining role of social support other than that received from family. When comparing workers from different health care sectors differences were found in respect of social support received from co-workers. It seems that perceived social support from colleagues is higher in those fields where long term and/or intensive relationship is developed between caregivers and clients. The practice of supervision may also be greater in these places. Therefore it would be worth promoting the development of relationships between co-workers in these areas, as our findings confirmed the protective role of social support from colleagues. It would be important to facilitate and promote cooperation within and between teams in these health care sectors, especially at a time when the structural reform or financial difficulties provide additional stress for workers.

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