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PROFESSIONAL BURNOUT AND STRESS AMONG POLISH PHYSICIANS EXPLAINED BY THE HOBFOLL RESOURCES THEORY

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Professional burnout is a complex set of different components. Emotional exhaustion, related to depersonalization and a sense of lowered personal achievements, is the most important phenomenon, which likely starts the whole process. A significant cause of the burnout is the loss of resources. According to Hobfoll's conservation of resources theory, the burnout syndrome is defined as a process of expenditure, loss and run-down developing gradually over time. It occurs when the restoration of the resources in the form of cognitive, emotional, and physical abilities does not appear. The demanding attitudes of patients, lack of social support and psychophysical fatigue constitute only a few causes of the burnout of doctors. In the Polish conditions the difficulties of the economical nature additionally occur. The presented research on the relationship between the professional burnout (measured by The Scale of Professional Burnout MBI), cynicism (described by a cynicism subscale of MMPI-2), and stress (evaluated by The Questionnaire of Self Esteem of Profits and Losses by Hobfoll) has been conducted among the group of Polish doctors of various specialties. The results confirmed that the most important resources for all participants are power, prestige, and family. In general, doctors provided a relatively low assessment of gains achieved in the last 12 months in respect of hedonistic and vital resources, spiritual resources, family resources, and material and political resources.

Key words: *burnout, psychology, stress*

INTRODUCTION

Professional burnout is perceived as important social and individual problem nowadays. Research on professional burnout has been developing for a long time, independent of professional stress that was associated exclusively with industry rather than with social contests. Only the work of Lazarus and Folkman

(1) on the interactive theory of stress provided a base for the analysis of social contests. Here, social stress is presented as a dynamic sequence of interrelated processes; stressor evaluation and interpretation in the primary assessment, and own competence and resources in the secondary assessment. This is also the second assessment of efficiency of methods used to struggle with the pressure exerted by professional work that requires close emotional relationships and concern for the other man.

A rich list of symptoms speaks for vastness and multidimension of the phenomenon of professional burnout, although mentioning them all could confuse the core of the disorder due to difficulties in the settlement of their weights and proportions. Some symptoms are characteristic for different phases of burnout and some seem to be contradictory (depression - aggressiveness). Gillespie (2) writes about two types burnout: active and passive. In the active form, aggressiveness and anger grow up as does susceptibility to irritation, and in the passive one, activity falls, following isolation and social resignation. Also Okla and Steuden (3) also show the extreme forms of two behaviors of persons who suffer from the burnout syndrome: aggressive and escaping. The aggressive try to fight difficult situations, and the escaping run away from people and from the problem. Schaufeli and Enzmann (4) pay attention to the mechanism of a vicious circle, where the symptoms can be both the reason and the result of professional burnout.

Irrespective of different concepts of burnout, there are the following three basic symptoms of this phenomenon: emotional and psychophysical exhaustion, depersonalization and the feeling of lack of satisfaction and low personal accomplishments. It is a slow progressive process that runs in three phases (5). The first phase is a warning stage in which headaches, constant symptoms of cold, concurrent feelings of irritation constantly reappear. Recovery to health is not difficult at this stage, as a short rest, temporary decrease of professional duties or a hobby will often suffice. The second phase is a more difficult stage in which the symptoms last longer. This phase is characterized by different explosions of irritation, contempt, and deterioration in the quality of work. These symptoms can cease after a longer time than a weekend rest, when one occupies oneself with something else than work. A third phase is already a chronic stage in which physical symptoms develop, both psychical and psychosomatic. At this stage, a help of a therapist is necessary, but it is not always effective.

The risk factors of professional burnout are connected with both an individual and an institution. Stress has an unquestioned significance in the burnout phenomenon, particularly when it is long-lasting and one's strategies are incapable of stress management. Schaufeli and Enzmann (4) point to the importance of social and demographic base in the development of burnout. In 1983, psychometric tests were constructed to determine the economic status or earnings of parents (6), but those were single trials which did not give reasons for deeper conclusions. Features such as age, professional experience, sex, education,

and marital status appear to play an especial role. Personal data are treated by all explorers of the burnout phenomenon as basic determinants of resistance or susceptibility to burnout. Such features are treated individually (hardness, effectiveness) or are assembled (7). The feeling of a loss of control is an essential factor of burnout investigations. The opportunity of upholding control or conviction about such an opportunity influences the behavior of people in difficult situations (8).

It is still debatable what is the correlation between the features of personality and burnout. At present, much attention is directed to the major five factors of professional burnout: neuroticism, extraversion, frankness, amicability, and conscientiousness (9, 10). Schaufeli and Enzman (4) have shown strong positive dependence between emotional exhaustion and neuroticism or frankness. Depersonalization correlates positively with neuroticism and negatively with amicability. The feeling of achievements correlates with neuroticism, extraversion, frankness, and conscientiousness. The lack of dependence between satisfaction at work along with these five factors are regarded as features of worker's personality rather than his reaction to professional stress.

According to Maslach (11) and Maslach and Jackson (12) burnout also is the effect of crisis of professional reports, for which the organizational structures are responsible. The essential meaning has psychical overload of work which constitutes a threat to psychological and psychical health, defined as a syndrome of the exhaustion of strength (13). Lack of balance develops between requirements and resources in relation to a worker. Recent investigations (14, 15) show the relationship of burnout and temper, which so far has not been taken under consideration in the burnout phenomenon. One's temper is yet another factor that plays a part in the control of stress, influencing its intensity and the way of managing it (15).

Consequences of burnout are visible in different areas of life, but first of all burnout disrupts family life, weakens the relationship with children and spouse, sometimes leading to its total severance. Health problems also appear and it may happen that a teacher with a syndrome of burnout simply runs away in a disease. Suicide attempts appear in extreme cases. The abuse of liquor, medicines, and drugs is not rare, all of which have consequences for work (16).

One of the models of burnout is Hobfoll's theory, defined as process of spending, loss, and supplies exhaustion, which develops slowly. Burnout turns up when the loss of resources follows and they cannot be supplemented by cognitive, emotional and physical abilities. Hobfoll (17) and Hobfoll and Freedy (18) have defined the resources in following way: *"I call supplies things which are esteemed by men. Objects of supplies are: conditions, personality traits and layers of energy, which are esteemed themselves as necessary to survival (directly or indirectly), or they serve to conquest of those enabling supplies survival"*.

A key in one's functioning are the resources. According to Diner and Fujita (19) supplies depend on the canthers enabling to conquest the feeling of competence,

which satisfies psychological and physical needs. A sum of supplies is the state of life satisfaction and is subjective to the feeling of well-being. With age, we achieve the skill of recognizing that what is important and necessary for us.

Baumeister (20) pays attention to the relationship between supplies and justification and shows that even when one is done in, he is able to work beyond his strength if justification is strong enough. Overcoming trauma exhausts supplies and lengthens the time of revival. A phenomenon that in an obvious way drains supplies also is professional burnout.

The main basis of the conservation of resources theory (COR) says that people aim for the obtainment, maintenance, protection, and promoting that what is for them valuable (17, 18). Therefore, a working man concentrates on how to gain resources he has not got and to protect already those possessed and to reproduce those that have been lost. People protect their supplies even when nothing threatens them. The author tells about four implications of the COR theory. Firstly, the larger resources are connected to the smaller probability of a loss, and to the larger possibilities of a profit. The fewer supplies the larger risk of a loss and less possibility of a profit. As a result, in case of people short of supplies, the spiral of profits is perishable and they are more subject to consequences of loss because of small reserves. After an initial loss they are not ready to invest in their resources. Secondly, the shortage of supplies causes the growth of the risk of a loss and the initial loss attracts another one. The third implication points out that the high level of resources causes larger profits and the initial profit attracts next one. The fourth implication explains that people lacking in resources accept defensive attitude and guard supplies they have.

The COR points to another key issue - man tries to win, to provide, to protect, and to promote not for the sake of a single moment, but for a long-term improvement. The efforts are not directed on winning prizes, but on protection of supplies (17, 18). Life is accompanied not only by major stress, but often by smaller stressors that can add up on one another and lead to a threatening situation for the maintenance of resources.

Shirom (21) and Ezrahi (22) have suggested that at an early stage of burnout, people try to fight stress intensively, investing in supplies. The lack of effects leads to excessive stimulation and frustration and then to defensive attitude. Such behavior depends on the accumulation of all accessible supplies, reduction of indirect loss of resources caused by wrong investments, and counteracting losses caused by negative feedback. This leads to emotional exhaustion, depersonalization and a feeling of defeat, which may be combined with fear and depression.

A human need of belief in the value of one's work is so strong that the cycles of losses in the burnout process can be insidious for long. However, that is not loss that is most stressing, but lack of expected profits from the resources invested. Zohar (23) has argued that both loss and lack of profit lead to a slow outflow of resources, or, in other words, to loss of reserves. Personal resources and supplies of energy are imperceptibly reduced and difficult to supplement. Pines et al (24)

have shown that what characterizes burnout are the feelings of impotence, hopelessness, and being in trap, and a falling level of enthusiasm. The self-esteem, feelings of effectiveness and aim drop and physical exhaustion proceeds. Hobfoll (17) underlines that, with every next turn of the cycle, emotional physical and reactions are stronger, and counteracting them absorbs more supplies.

Cynicism is one of essential symptoms of professional burnout, which is visible in the cognitive sphere. On interpersonal level, it appears in the form of dehumanized perception of a recipient and on the organizational level it concerns the value of work (4). Cynicism is an attitude not to acknowledge values representative for a given group and to disrespect institutions and authorities (25). Cynics look for negative motives of their actions, such as manipulation or dishonesty. They like to keep negative attitudes even toward close collaborators, family, and friends, which is caused by the fear of showing their true nature.

The difficult socioeconomic situation of Polish doctors, poor working conditions, work overload, lack of appropriate remuneration, and malfunctioning health care system make many excellent young professionals to work in western countries. Those who have stayed in Poland complain about their professional situation, demand changes and threaten with a nationwide strike. According to the stress theory by S. Hobfoll, the professional situation of doctors largely fosters professional burnout. In order to examine the level of emotional exhaustion, depersonalization, and lack of professional satisfaction among doctors, we conducted a research that took into consideration also the subjective assessment of resource gain or loss. The leading research hypothesis was that doctors would more strongly feel that they did not gain any resources as compared with representatives of other professional groups – despite the energy invested – and that they lost the resources they had already obtained. Moreover, it was assumed that Polish doctors, as a group particularly predisposed to the professional burnout syndrome (owing to the poor economic situation and specific relations with patients resulting from inefficient health care system), would demonstrate higher level of emotional exhaustion and lack of professional satisfaction together with cynicism and tendency to depersonalize patients.

MATERIAL AND METHODS

This research made use of Hobfoll's Questionnaire of Self-Assessment of Gains and Losses in the Polish adaptation by Ewa Gruszczyńska. The scale consists of two parts. In part A, subjects mark answers on a 5-grade scale regarding importance of hedonistic and vital resources (11 statements), spiritual resources (7 statements), family resources (9 statements), material and political resources (8 statements), and power and prestige resources (5 statements). The aforementioned subscales were created as a result of a factor analysis on the scale containing 91 statements. Statements of factor load >0.50 were classified in individual factors. The first factor explains 8.70% of variance, the second – 7.32%, the third – 6.81%, the fourth – 6.55%, and the fifth – 6.31%. Cronbach's alpha reliability coefficients of the subscales are satisfactory and amount to, for respective factors, 0.77 (hedonistic

and vital resources), 0.77 (spiritual resources), 0.88 (family resources), 0.83 (material and political resources), and 0.80 (power and prestige resources). In part B, using the aforementioned statements, subjects determine on a 6-grade scale whether there was a change for better (gain) or worse (loss) in the aforementioned areas in the last 12 months. In order to obtain final results of part B subscales, we need to calculate both products: value x gain and value x loss.

Another instrument used in the research was a cynicism scale, an additional scale of the MMPI-2 questionnaire developed by JN Butcher (cf. Kucharski, Gomuła, 1998). The cynicism scale measures aggressive tendencies manifesting in beliefs regarding negative motivators of behaviour of people who hide their true intentions and use friendships for their own ends. A person with a high cynicism coefficient is full of distrust and fear of manipulation and exploitation. The person is also dissatisfied with others. The scale consists of 23 statements with which subjects agree or disagree. Cronbach's alpha reliability coefficient for this scale is 0.82.

The third questionnaire used was a MBI scale by C Maslach in the Polish adaptation by T. Pasikowski and H. Sęk. The method consists of 22 statements to which subjects respond on a 7-grade scale, specifying how often the situations described in the questionnaire happen. 0 - means that a given situation has never happened, 3 means that it happens several times a month, 4 means it happens several times a week, 6 means that a certain situation happens every day. The scale contains three subscales: emotional exhaustion (9 statements), depersonalisation (5 statements), and professional satisfaction (8 statements).

Participants

Seventy seven people participated in the research, 18 male and 23 female doctors, and 19 men and 17 women in the control group. All the subjects had higher education and lived in middle-sized and large cities (Wrocław, Opole, Jelenia Góra). The mean age was 37.7 ± 10.9 (SD) years. There was no statistically significant age difference in both groups. The mean job seniority among doctors was 15.1 ± 11.0 years. Twenty four doctors worked on night duty and the mean number of duties a month amounted to 5.5 ± 2.3 . Twenty seven doctors held one full-time job, seven doctors - two full-time jobs, and three doctors - three full-time jobs. In the control group, subjects had various occupations: there were teachers, administrative officers, academics, managers, computer scientists, and economists.

Analyses were conducted using Multivariate Analysis of Variance (MANOVA) for two classifying factors: doctors vs. other employees, and women vs. men. Moreover, the correlation coefficients for selected dimensions were calculated.

RESULTS

Analysis of the results for Hobfoll's Questionnaire of Self-Assessment of Gains and Losses began from the determination of importance of resources owned. Definitely, the highest means were obtained for the following two: power and prestige resources - 4.35 and family resources - 4.24. The means for other resources: hedonistic and vital, spiritual, and material and political resources were identical and amounted to 3.78. There was a significant difference between the former two and the other means of resources ($P < 0.001$). Intergroup comparisons did not reveal any appreciable differences $F(1,65)=0.45$, $P=0.50$, as also was the case for the comparison between women and men $F(1,65)=0.09$, $P=0.76$. These

results demonstrate that all the subjects had identical hierarchy of importance of resources; the most important being power and prestige and family resources.

Further analysis of results of Hobfoll's Questionnaire of Self-Assessment of Gains and Losses consisted of intergroup comparisons of the following products: value x gain and value x loss. The MANOVA analysis did not demonstrate primary effects for the factor of the group: Wilks' Lambda=0.82, $F(5, 44)=1.87$, $P=0.11$ regarding the subjective assessment of gains. However, post hoc comparisons demonstrated a significant difference. With regard to hedonistic and vital resources, the control group had a higher mean result of 551.4 than the 301.8 in the group of doctors; $P<0.05$. Subjects of the control group also assessed their gains regarding spiritual resources in the last 12 months better than the doctors; means of 170.6 and 81.2, respectively; $P<0.05$. The same arrangement of results was demonstrated in the third measurement, the family resources. Here, subjects of the control group had a mean score of 451.3, which was significantly different from the 235.8 in doctors; $P<0.05$. Doctors were also more sceptical in the assessment of material and political gains, 162.4 vs. 311.1 in the control group; $P<0.05$. Only in the case of the assessment of power and prestige resource gains, the groups did not differ, with the means amounting to 147.44 in the control and to 95.5 in the doctor group; $P=0.09$. Gender comparisons did not reveal any significant primary effects: Wilks' Lambda=0.82, $F(5, 44)=1.87$, $P=0.11$. Moreover, there were no significant interaction effects: Wilks' Lambda=0.90, $F(5, 44)=0.97$, $P=0.44$.

Concerning the subjective sense of a loss of resources in the last 12 months, the intergroup, control-doctors, comparisons did not reveal any significant differences between the means: Wilks' Lambda=0.85, $F(5, 43)=1.41$, $P=0.23$, similarly as was the case for gender comparisons: Wilks' Lambda=0.84, $F(5, 43)=1.60$, $P=0.17$. However, the effects of the interaction were statistically significant: Wilks' Lambda=0.78, $F(5, 43)=2.42$, $P=0.05$. In the control group, the assessment of losses was lower in men than in women, the mean results were 414.6 and 447.7, respectively. The opposite dependence was observed in the doctors group, the mean result was higher for men -504.2 than for women - 475.0.

Another scale used, measured professional burnout regarding the following aspects: emotional exhaustion, depersonalization, and professional satisfaction. The intergroup and gender comparisons did not reveal statistically significant primary effects, but there was an effect of the interaction: Wilks' Lambda=0.86, $F(3, 55)=2.98$, $P=0.03$. The difference appeared in the emotional exhaustion scale. The men in the control group were less emotionally exhausted than the male doctors, the mean results were 12.3 and 21.3; respectively. The opposite was true for the women; they felt less emotionally exhausted in the control group than the female doctors, the mean results were 23.5 and 19.9, respectively.

On the cynicism scale, there were no statistically significant differences between the groups tested $F(1, 64)=0.01$, $P=0.91$ and the genders $F(1, 64)=0.11$, $P=0.73$. The mean group results were as follows: for male - 8.7 and for female doctors - 7.9; for male - 8.4 and for female controls - 8.4; $P>0.05$.

Correlations among the scales used in this research were assessed. Among the three subscales of MBI by C. Maslach, the depersonalization subscale correlated with the cynicism scale, $r=0.27$. Correlation coefficients for the subscales of the Questionnaire of Self-Assessment of Gains and Losses and those for the Questionnaire of Professional Burnout and the Cynicism Scale are presented in *Table 1*. The emotional exhaustion scale significantly correlated with the subscales of family resources, material and political resources, and power and prestige resources, which illustrates the subjective sense of loss. The depersonalization subscale positively correlated with all the subscales of resource losses and the results of the professional satisfaction scale correlated with those of gains of hedonistic and vital resources.

DISCUSSION

The hypotheses proposed were partially confirmed. We anticipated that doctors, contrary to other employees would evaluate more negatively the resources they had gained and that they lost the resources they had already obtained. It was also assumed that Polish physicians would demonstrate higher level of emotional exhaustion and lack of professional satisfaction together with cynicism and a tendency to depersonalize patients. The results indicate that there were no appreciable differences between the control and doctor groups, as assessed by Maslach's Professional Burnout Scale. Therefore, it can be supposed that doctors, contrary to the prediction, are not individuals characterized by a high degree of emotional exhaustion, a tendency for depersonalization, and a low professional satisfaction. Meanwhile, the research conducted by Ogińska-Bulik

Table 1. Correlation coefficients for the subscales of Hobfoll's Questionnaire of Self-Assessment of Gains and Losses, Maslach's Questionnaire of Professional Burnout MBI, and the Cynicism Scale.

	Emotional exhaustion	Depersonalization	Professional cynicism	Cynicism scale
RESOURCES GAIN				
Hedonistic and vital	-0.00	0.04	0.33*	0.06
Spiritual	0.14	0.13	0.29	0.24
Family	0.01	0.09	0.24	0.13
Material and political	0.14	0.10	0.28	0.20
Power and prestige	0.21	0.03	0.13	0.16
RESOURCES LOSS				
Hedonistic and vital	0.28	0.53*	-0.25	-0.07
Spiritual	0.09	0.35*	-0.06	-0.04
Family	0.40*	0.52*	-0.25	0.10
Material and political	0.34*	0.47*	-0.19	0.10
Power and prestige	0.36*	0.44*	-0.24	0.02

Correlation coefficients marked with (*) are significant at $P<0.05$.

and Kafik-Pieróg (26) has shed a new light on the results discussed. These authors show that the mean score of emotional exhaustion among people with higher education is 15.6. The figure is much lower than the means achieved in our research by the group of doctors - 20.5 and by the control group - 17.3. Discrepancies are also present in other dimensions. Subjects examined by Ogińska-Bulik and Kafik-Pieróg (26) were less satisfied compared with those who participated in the present study, the mean results of 27.6 and 33.0, respectively. The former were also more willing to depersonalize (mean=6.6) than our subjects (mean=4.5). Obviously, we can hardly say whether the described differences are significant. Nevertheless, this research would be worth continuing in order to explain the aforementioned discrepancies.

The results obtained in the present study from Hobfoll's Questionnaire of Self-Assessment of Gains and Losses are of note. In general, doctors provided a relatively low assessment of gains achieved in the last 12 months in respect to hedonistic and vital resources, spiritual resources, family resources, and material and political resources. Only in case of gains regarding power and prestige resources, doctors did not differ from the control group. The groups did not differ regarding the loss of individual resources. In reference to Hobfoll's concept, it should be stated that doctors may undergo a stage of intensified investing of their resources, which does not translate into gains. This type of process may linger on and the long-term lack of expected gains does not only adversely affect restoration, but also successively reduces the resources being held. The discreet symptoms of professional burnout can already be observed on the emotional exhaustion scale.

A straightforward interpretation of the results obtained from the cynicism scale is not sufficient. Obviously, it is possible that our subjects were people with a high level of dislike and mistrust of other people. The comparison of the results obtained with the standard for the Polish population enables us to say that our subjects were precisely in the middle of the scale. However, the result could likely be affected by a need for social approval, making the subjects reluctant to admit to socially unacceptable hostile impulses. Furthermore, it is possible that they were not fully aware of the negative attitudes emanating from the environment, chiefly the recipients of medical services. To resolve this issue, research among people that regularly make use of medical services should be conducted. Perhaps, negative stereotypes of doctors unfriendly to patients are not as predominant in Poland as one could think.

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