

## Relation Between Burnout Syndrome and Job Satisfaction Among Mental Health Workers

Jelena Ogresta, Silvia Rusac, Lea Zorec

Department of Social Work, Faculty of Law, University of Zagreb, Zagreb, Croatia

**Aim** To identify predictors of burnout syndrome, such as job satisfaction and manifestations of occupational stress, in mental health workers.

**Method** The study included a snowball sample of 174 mental health workers in Croatia. The following measurement instruments were used: Maslach Burnout Inventory, Manifestations of Occupational Stress Survey, and Job Satisfaction Survey. We correlated dimensions of burnout syndrome with job satisfaction and manifestations of occupational stress dimensions. We also performed multiple regression analysis using three dimensions of burnout syndrome – emotional exhaustion, depersonalization, and personal accomplishment.

**Results** Stepwise multiple regression analysis showed that pay and rewards satisfaction ( $\beta = -0.37$ ), work climate ( $\beta = -0.18$ ), advancement opportunities ( $\beta = 0.17$ ), the degree of psychological ( $\beta = 0.41$ ), and physical manifestations of occupational stress ( $\beta = 0.29$ ) were significant predictors of emotional exhaustion ( $R = 0.76$ ;  $F = 30.02$ ;  $P < 0.001$ ). The frequency of negative emotional and behavioral reactions toward patients and colleagues ( $\beta = 0.48$ ), psychological ( $\beta = 0.27$ ) and physical manifestations of occupational stress ( $\beta = 0.24$ ), and pay and rewards satisfaction ( $\beta = 0.22$ ) were significant predictors of depersonalization ( $R = 0.57$ ;  $F = 13.01$ ;  $P < 0.001$ ). Satisfaction with the work climate ( $\beta = -0.20$ ) was a significant predictor of lower levels of personal accomplishment ( $R = 0.20$ ;  $F = 5.06$ ;  $P < 0.005$ ).

**Conclusion** Mental health workers exhibited a moderate degree of burnout syndrome, but there were no significant differences regarding their occupation. Generally, both dimensions of job satisfaction and manifestations of occupational stress proved to be relevant predictors of burnout syndrome.

> **Correspondence to:**

Jelena Ogresta  
Faculty of Law  
Department of Social Work  
Nazorova 51  
10000 Zagreb, Croatia  
jogresta@pravo.hr

> **Received:** May 14, 2008

> **Accepted:** June 4, 2008

> **Croat Med J. 2008;49:364-74**

> doi:10.3325/cmj.2008.3.364

Burnout syndrome is a subject of the interdisciplinary area of occupational stress research (1). It is defined as a sustained response to chronic work stress and includes emotional exhaustion, negative attitudes and feelings toward the recipients of the service (depersonalization), and a feeling of low accomplishment and professional failure. Emotional exhaustion involves feelings of being emotionally overextended and exhausted by one's work, resulting in a loss of energy and general weakness. Depersonalization refers to the development of impersonal and unfeeling attitudes toward patients and loss of idealism at work. The feeling of reduced personal accomplishment refers to a feeling of lack of competence and personal achievement (2).

Burnout syndrome was most often studied among helping professionals (nurses, physicians, psychologists, and social workers), education, and human resources professionals (3,4). In mental health workers, sources of occupational stress are mostly related to the difficulties in the functioning of health care system (5,6), such as time pressure, chronic fatigue, uncertainties in patient care, demanding chronic patients, poor interpersonal relations at work, and role ambiguity (7-9). Moreover, working with patients is considered to be one of the most important factors leading to burnout syndrome (6,10).

In the 1990s in Croatia, a number of studies was conducted on the occupational stress in the helping profession (1,11,12) and burnout syndrome (2,13-16), showing their negative effect on the workers' health and economic losses induced by absence from work and decreased working productivity. Also, some recent studies have identified personal, interpersonal, and organization factors related to job satisfaction, occupational stress, and burnout syndrome in health care (17-21) and have confirmed a correlation between low job satisfaction and burnout syndrome (22,23).

Low job satisfaction can lead to increased job mobility and more frequent absenteeism, which may reduce the efficiency of health care services (24). In the previous research (25), the relationship between job satisfaction and burnout syndrome was viewed from two perspectives – the perspective of causes and the perspective of consequences and their effect on attitudes, mental and physical health, productivity, absence from work, fluctuation, and other different forms of work behavior. Some of recent studies have shown that social workers (26-28) and nurses (29) express lower job satisfaction than other professions in mental health care.

Low job satisfaction among mental health workers has also been confirmed by some studies conducted in United Kingdom (30) and Canada (31), while several studies have shown exactly the opposite, ie, that there is a high degree of job satisfaction among employees in these professions (6,20,21). Exposure to occupational stress leads to psychological and physical reactions, the intensity and form of manifestation of which depends on personality traits and environmental factors. The most widespread manifestations of occupational stress in helping professions include emotional exhaustion, depersonalization and dehumanized perception of the patient, absenteeism, damaged physical health, and reduced personal satisfaction. Studies have shown that, compared with general population and other professions, social workers suffer from relatively high level of anxiety and depression related to their profession (32,33).

The aims of this study were to examine the relation between burnout syndrome and job satisfaction and to identify independent predictors, such as job satisfaction and manifestations of occupational stress, of burnout syndrome among mental health workers.

## Participants and methods

### Participants

A sample of 174 mental health workers was formed, using the snowball method according to the availability and readiness of the employees to participate in the study. There were 139 (79.9%) women and 35 (20.1%) men. Their age ranged from 20 to 64 years ( $41.2 \pm 10.6$ ). There were 86 (49.4%) nurses, 27 (15.5%) social workers, and 61 (35.1%) psychiatrists. Forty-five (25.9%) of them were employed in the field of mental health care for less than 10 years, 54 (31.0%) between 11 and 20 years, 43 (24.7%) between 21 and 30 years, and 32 (18.4%) over 30 years. There were 1.7% widowed participants, 65.1% participants were married and lived with a spouse, 7.0% were divorced, and 25.6% were living with a partner or were single.

### Method

The study was conducted in the period between March and December 2007 in 3 state psychiatric hospitals and 12 psychiatric clinics in Croatia (the names of the institution are available from the authors; they were not mentioned here to preserve the anonymity of the participants). Questionnaires were returned by mail. Two reminders were sent in June and October and the overall response rate was 50%. Participation in the study was voluntary.

### Instruments

We used a demographic questionnaire to collect data on sex, age, profession, years of service, marital status, and number of children, and three structured questionnaires, as follows: the Job Satisfaction Survey, Croatian version of the Maslach Burnout Inventory, and The Manifestations of Occupational Stress questionnaire.

The Job Satisfaction Survey (34) measures satisfaction with 9 job aspects (pay, advance-

ment, supervision, benefits, rewards, management rules, colleagues, nature of work, and communication). It consists of 36 items. Self-report ratings for each item form a scale from 1 (strongly disagree) to 5 (strongly agree). The questionnaire has been used in a large number of studies and has proved to be reliable ( $\alpha = 0.91$ ) for measuring job satisfaction (34).

As the scale was used on mental health workers in Croatia for the first time, we tested its metric characteristics and found them satisfactory; the scale showed a normal distribution (Kolmogorov-Smirnov  $Z = 0.78$ ,  $P < 0.001$ ;  $108.9 \pm 17.5$ ) and good internal consistency ( $\alpha = 0.88$ ).

Factor analysis resulted in 4 significant principal dimensions according to Kaiser-Guttman's criterion and the Scree test, and the percentage of explained variance by 4 significant dimensions before rotation was 41.03%. By analyzing the loadings of the individual manifest variable, we established that job satisfaction can be explained using the following latent dimensions: job and rewards satisfaction ( $\lambda_1 = 7.34$ ), satisfaction with the superior and colleagues ( $\lambda_2 = 2.80$ ), advancement and benefits satisfaction ( $\lambda_3 = 1.96$ ), and work climate satisfaction ( $\lambda_4 = 1.84$ ). The Cronbach  $\alpha$  reliability coefficient was 0.68 for the dimension of work climate satisfaction, 0.73 for advancement and benefits satisfaction, 0.79 for satisfaction with the superior and colleagues, and 0.81 for the dimension of job and reward satisfaction.

Croatian version of the Maslach Burnout Inventory (35) includes 22 items on a 7-point Likert-type frequency scale (0 – never; 1 – a few times a year or less; 2 – once a month or less; 3 – a few times a month; 4 – once a week; 5 – a few times a week; 6 – every day). The items were distributed in three dimensions, as follows: emotional exhaustion, depersonalization, and personal accomplishment. High results on the questionnaire imply high results

on the emotional exhaustion and depersonalization scales and lower results on perceived reduced personal accomplishment scale. Cronbach  $\alpha$  coefficient of internal consistency was 0.88 for emotional exhaustion, 0.72 for depersonalization, and 0.67 for perceived reduced personal accomplishment (35).

Factor analysis of Maslach Burnout Inventory (35) resulted in 3 significant principal dimensions according to Kaiser-Guttman's criterion and the Scree test as follows: emotional exhaustion ( $\lambda_1 = 5.93$ ), depersonalization ( $\lambda_2 = 3.26$ ), and perceived reduced personal accomplishment ( $\lambda_3 = 1.65$ ). The percentage of explained variance by 3 significant dimensions before rotation was 49.31%.

The Cronbach  $\alpha$  reliability coefficient was 0.84 for emotional exhaustion, 0.80 for depersonalization, and 0.76 for perceived reduced personal accomplishment. The subscales showed good internal consistency, allowing the formation of composite scores.

The Manifestations of Occupational Stress (35) consists of 22 Likert-type items (ranging from 1 – “never” to 7 – “always”) showing burnout symptoms' frequency. The Cronbach  $\alpha$  reliability coefficient was 0.93 (35). In this survey, the result distribution was asymmetric to the left, according to expectations, since this phenomenon does not have a normal distribution in the population (Kolmogorov-Smirnov  $Z = 1.76$ ;  $P < 0.001$ ;  $52.6 \pm 19.2$ ). The high internal consistency coefficient pointed to a high reliability of the tool ( $\alpha = 0.92$ ). The factor analysis after varimax rotation showed a three-factor latent structure according to the Kaiser-Guttman criterion and the Scree test, the dimensions being as follows: the frequency of negative emotional and behavioral reactions toward patients and colleagues ( $\lambda_1 = 9.21$ ), the frequency of the psychological manifestations of occupational stress ( $\lambda_2 = 2.19$ ), and the frequency of the physical manifestations of occupation-

al stress ( $\lambda_3 = 1.63$ ), and they accounted for 59.24% of the variance. The Cronbach  $\alpha$  reliability coefficient was 0.74 for the frequency of the psychological manifestations of occupational stress, 0.90 for the frequency of the physical manifestations of occupational stress, and 0.92 for the frequency of negative emotional and behavioral reactions toward patients and colleagues.

#### **Statistical analysis**

To determine the association between the measures, Pearson correlation coefficient was calculated. The correlations between results were measured on the dimensions' factor points derived from the factorial solutions of each instrument. Predictive value of job satisfaction and manifestation of occupational stress for each burnout dimension was tested by stepwise regression analysis.

Statistical analysis was performed with the SPSS, version 13.0 (SPSS Inc., Chicago, IL, USA). The level of statistical significance was set at  $P < 0.05$ .

## **Results**

### **Descriptive statistics for three dimensions on the Maslach Burnout Inventory**

The total score on the dimension of emotional exhaustion varied from 8 to 48 points, indicating a medium level of emotional exhaustion (mean  $\pm$  standard deviation,  $24.5 \pm 9.2$ ). The average score on depersonalization varied from 8 to 52 points ( $16.6 \pm 7.6$ ), indicating a medium level of depersonalization. The average score on personal accomplishment varied from 7 to 46 points, indicating a high level of personal achievement ( $21.8 \pm 7.4$ ). There were no significant differences in three dimensions of burnout syndrome between nurses, social workers, and psychiatrists ( $F = 0.316$ ,  $P = 0.730$ ;  $F = 0.673$ ,  $P = 0.512$ ;  $F = 1.859$ ,  $P = 0.159$ ).

**Correlation between burnout syndrome, job satisfaction, and manifestation of occupational stress dimensions**

When correlation between burnout and job satisfaction dimensions was examined, all three burnout syndrome dimensions were significantly correlated with the work climate satisfaction (Table 1). While emotional exhaustion and depersonalization were moderately correlated with work climate satisfaction, personal accomplishment and work climate satisfaction were correlated to a low but significant degree. Of other job satisfaction dimensions, only the rewards satisfaction was negatively correlated with emotional exhaustion.

When the correlation between burnout and manifestation of occupational stress dimensions was examined, there was a significant correlation between emotional exhaustion and frequency of psychological and physical (0.45) manifestations of occupational stress. In addition, depersonalization was significantly correlated with the frequency of negative emotional

and behavioral reactions toward patients and colleagues, and with psychological manifestations of stress. Interestingly, perceived accomplishment did not correlate with the manifestations of occupational stress dimensions (Table 1).

**Correlation between job satisfaction and manifestation of occupational stress**

In order to obtain a more accurate insight into prediction of burnout syndrome using the dimensions of job satisfaction and manifestations of occupational stress, it was necessary to interpret inter-correlations of the variables that were taken as predictors. Pearson coefficients of the bivariate inter-correlations between the dimensions of job satisfaction and the dimensions of manifestations of occupational stress (Table 2) showed that the frequency of negative emotional and behavioral reactions toward patients and colleagues was in a small but significantly negative correlation with the work climate satisfaction and with the advancement

**Table 1.** Pearson coefficient correlation between burnout syndrome and job satisfaction

	Dimensions of burnout syndrome		
	emotional exhaustion	depersonalization	personal accomplishment
Job satisfaction dimensions:			
rewards	-0.52*	0.04	-0.03
superiors and colleagues	-0.17	-0.02	0.09
advancement and benefits	0.07	0.11	-0.06
work climate	-0.38*	-0.27*	-0.19†
Manifestations of occupational stress dimensions:			
negative emotional and behavioral reactions toward patients and colleagues	0.05	0.40*	0.03
physical manifestations of occupational stress‡	0.40*	0.26*	0.04
psychological manifestations of occupational stress§	0.45*	0.15	0.06

\*P<0.01.

†P<0.05.

‡Physical manifestations of occupational stress were headache, rapid shallow breathing, rapid heart beat, fatigue, gastrointestinal problems, pain, sleep disturbances, and physical exhaustion.

§Psychological manifestations of occupational stress were feeling insecure, feeling anxious, feeling depressed, feeling unable, feeling socially isolated, feeling distanced, feeling irritable, feeling sad, and feeling dissatisfied.

**Table 2.** Pearson coefficient correlation between job satisfaction and manifestations of occupational stress

Job satisfaction dimensions	Manifestations of occupational stress dimensions		
	negative emotional and behavioral reactions toward patients and colleagues	physical manifestations of occupational stress*	psychological manifestations of occupational stress†
Rewards	-0.14	-0.03	-0.38‡
Superior and colleagues	-0.04	-0.25‡	0.03
Advancement and benefits	-0.23‡	-0.15	-0.00
Work climate	-0.24‡	-0.27‡	-0.16

\*Physical manifestations of occupational stress were headache, rapid shallow breathing, rapid heart beat, fatigue, gastrointestinal problems, pain, sleep disturbances, and physical exhaustion.

†Psychological manifestations of occupational stress were feeling insecure, feeling anxious, feeling depressed, feeling unable, feeling socially isolated, feeling distanced, feeling irritable, feeling sad, and feeling dissatisfied.

‡P<0.01.

and benefit satisfaction. The satisfaction with superiors and colleagues was significantly negatively correlated with the frequency of the physical manifestations of occupational stress, while the rewards satisfaction was significantly negatively correlated with the frequency of the psychological manifestations of occupational stress. Due to the significant correlations between these dimensions, we expected somewhat lower individual contribution in the total variance explanation (Table 2).

**Prediction of emotional exhaustion with job satisfaction and manifestation of occupational stress dimensions**

The data were further subjected to 3 stepwise regression analyses, where the frequency of psychological and physical symptoms, negative emotional and behavioral reactions toward colleagues and patients, and each dimension of job satisfaction were taken as predictor variables. The criterion variables were the three dimensions of burnout syndrome.

Stepwise multiple regression analysis for the emotional exhaustion showed that a set of predictor variables accounted for the total of 58% criterion variance. The value of the multiple regression coefficient (Table 3) increased with every added predictor, which significantly contributed to the enlargement of the accounted for part of the variance with total value of 0.76 (F = 30.02; P<0.001). Regression

coefficients from Table 3 also identified significant predictors of emotional exhaustion as follows: rewards satisfaction and work climate satisfaction as negative predictors, and psychological manifestations of occupational stress, psychological manifestations of occupational stress, and advancement opportunities and benefits satisfaction as positive predictors. Negative emotional and behavioral reaction toward patients and colleagues and the satisfaction with the superiors and colleagues did not contribute significantly to the explanation of the emotional exhaustion variance (Table 3).

**Prediction of depersonalization with job satisfaction and manifestation of occupational stress dimensions**

Multiple regression analysis with the same set of predictors was used for the depersonalization and showed the significance of four dimensions in the variance explanation (Table 4). Thirty two percent of the depersonalization variance (R = 0.57; F = 13.01; P<0.001) was explained by the following predictors: negative emotional and behavioral reactions toward patients and colleagues, psychological manifestations of occupational stress, physical manifestations of occupational stress, and rewards satisfaction. The satisfaction with superiors and colleagues, advancement opportunities and benefits, and satisfaction with work

**Table 3.** Results of stepwise regression analysis with emotional exhaustion as criterion variable

Predictors	β	R	R <sup>2</sup>	F
Rewards	-0.37*	0.47	0.22	32.19*
Psychological manifestations of occupational stress <sup>†</sup>	0.41*	0.65	0.43	42.03*
Physical manifestations of occupational stress <sup>‡</sup>	0.29*	0.72	0.52	40.07*
Work climate	-0.18*	0.74	0.55	33.66*
Advancement and benefits	0.17*	0.76	0.58	30.02*
Negative emotional and behavioral reactions toward patients and colleagues	-0.05			
Superior and colleagues	-0.07			

\*P<0.01.

†Physical manifestations of occupational stress were headache, rapid shallow breathing, rapid heart beat, fatigue, gastrointestinal problems, pain, sleep disturbances, and physical exhaustion.

‡Psychological manifestations of occupational stress were feeling insecure, feeling anxious, feeling depressed, feeling unable, feeling socially isolated, feeling distanced, feeling irritable, feeling sad, and feeling dissatisfied.

**Table 4.** Results of stepwise regression analysis with depersonalization as criterion variable

Predictors	β	R	R <sup>2</sup>	F
Negative emotional and behavioral reactions toward patients and colleagues	0.48*	0.42	0.18	24.34*
Psychological manifestations of occupational stress <sup>†</sup>	0.27*	0.50	0.25	18.97*
Physical manifestations of occupational stress <sup>‡</sup>	0.24*	0.53	0.28	14.43*
Rewards	0.22*	0.57	0.32	13.01*
Superior and colleagues	0.08			
Advancement and benefits	0.02			
Work climate	-0.04			

\*P<0.01.

†Physical manifestations of occupational stress were headache, rapid shallow breathing, rapid heart beat, fatigue, gastrointestinal problems, pain, sleep disturbances, and physical exhaustion.

‡Psychological manifestations of occupational stress were feeling insecure, feeling anxious, feeling depressed, feeling unable, feeling socially isolated, feeling distanced, feeling irritable, feeling sad, and feeling dissatisfied.

climate were not significant predictors with individual contribution.

**Prediction of personal accomplishment with dimensions of job satisfaction and manifestation of occupational stress**

Out of the above-mentioned set of predictors for the dimension of personal accomplishment, only the dimension of work climate satisfaction proved to be a significant predictor with independent contribution, accounting for mere 4% of the criterion variance ( $P < 0.05$ ; Table 5).

**Table 5.** Results of stepwise regression analysis with personal accomplishment as criterion variable

Predictors	B	R	R <sup>2</sup>	F
Work climate	-0.20*	0.20	0.04	5.06*
Negative emotional and behavioral reactions toward patients and colleagues	0.00			
Physical manifestations of occupational stress <sup>†</sup>	-0.01			
Psychological manifestations of occupational stress <sup>‡</sup>	0.04			
Rewards	0.00			
Superior and colleagues	0.05			
Advancement and benefits	-0.02			

\* $P < 0.05$ .

<sup>†</sup>Physical manifestations of occupational stress were headache, rapid shallow breathing, rapid heart beat, fatigue, gastrointestinal problems, pain, sleep disturbances, and physical exhaustion.

<sup>‡</sup>Psychological manifestations of occupational stress were feeling insecure, feeling anxious, feeling depressed, feeling unable, feeling socially isolated, feeling distanced, feeling irritable, feeling sad, and feeling dissatisfied.

## Discussion

Our results showed that mental health workers in Croatia reported a moderate degree of emotional exhaustion and depersonalization and a high degree of personal accomplishment. There were no significant differences in three dimensions of burnout syndrome among nurses, social workers, and psychiatrists. Our results differ from reports from other countries, which have demonstrated a high degree of emotional exhaustion and reduced personal accomplishment and a lower degree of depersonalization among mental health workers (36-38). A study that investigated burnout syndrome among mental health workers showed that 36% of mental health workers demonstrated early signs of burnout syndrome, while 6.3% of them had a fully developed syndrome, ie,

burnout was presented among 71% of psychologists, 43% of psychiatrists, and 73% of social workers (39). Only a single study has shown that mental care workers display a low degree of burnout syndrome (40). When it comes to differences in the degree of burnout in relation to the profession, our results are also contrary to previous studies, which reported that social workers displayed a higher degree of burnout syndrome than other mental health workers (27,33,34,37,41). The majority of studies have confirmed that job dissatisfaction is one of the most significant factors contributing to the burnout syndrome (42). Negative correlation between job satisfaction, emotional exhaustion, and depersonalization, and the positive correlation between job satisfaction and reduced personal accomplishment have also already been confirmed in some previous studies (15,16,23,43).

Our results showed the highest degree of correlation between emotional exhaustion and pay and rewards satisfaction, which indicates that workers who are less satisfied with their pay and rewards report a higher degree of emotional exhaustion. Some previous studies have also shown that the pay rate as an external motivator can intensify the stress. This finding is consistent with a study showing that younger workers who are less satisfied with their pay rate tend to leave their profession more often (44). The loss of external rewards reduces the chances that an expert will be dedicated to his work (45).

Work climate satisfaction was in negative correlation with all three dimensions of burnout syndrome, which shows that workers who are less satisfied with the work climate display a higher degree of burnout. Some of the earlier studies have also shown that a poor relationship with colleagues, lack of teamwork and support, and the insufficient communication were the most common stress factors at workplace (46). Most studies also show a

correlation between social support among colleagues and a higher degree of job satisfaction, as well as personal accomplishment. Working conditions and dissatisfaction with colleagues and superiors have been the factors influencing burnout syndrome (47). Poor relationship with colleagues and superiors results in burnout when there is no possibility of exchanging experience and ideas, as well as when there is a lack of positive feedback from superiors.

Therefore, health workers' job satisfaction was recognized as a criterion that should be included into the improvement of the quality of care for the mental health of the workers in the helping professions.

Nowadays, a negative correlation between the source of stress and physical and psychological health has been confirmed as well. Stress causes an increase in psychosomatic diseases and psychological difficulties, absence from work, and reduced productivity (48,49).

The majority of these psychological and physical stress indicators are a result of the individual-environment interaction (49). Burnout syndrome is related to different indicators of personal dysfunction. Emotional exhaustion comes with physical exhaustion, illness, psychosomatic symptoms, increased alcohol consumption, and more frequent marital and family conflicts (50). This may all lead to deterioration in patient care quality. Our study also confirmed that workers who displayed psychological and physical manifestations of stress more often displayed a higher level of emotional exhaustion. Our results are in tune with the earlier insights, which showed a correlation between emotional exhaustion and depression (51-53).

It has already been emphasized that job dissatisfaction is highly correlated with the role ambiguity, poor interpersonal relations, too much administrative work, and the quality of social support (53). Apart from this, a

meta-analytical study on the relation between job satisfaction and different health outcomes (28) has shown that job satisfaction is in close relation with both psychological and physical health. This correlation is particularly significant for the aspects of mental health such as burnout syndrome, lower self-esteem, anxiety, and depression, and supports the claim that job dissatisfaction may be particularly damaging to health and welfare of the worker. The results of our study reaffirmed this claim, and they showed that dissatisfaction with particular job aspects was linked to a higher frequency of the manifestations of stress, pertaining to psychological and physical health, as well as to the relationship with colleagues and patients.

This study showed that mental health workers displayed a moderate degree of burnout and that their dissatisfaction with some aspects of their job correlated with a higher degree of burnout. The correlation between a higher degree of the manifestations of stress and dissatisfaction with some of the characteristics of their job was also confirmed. Workers who showed a higher level of depersonalization and emotional exhaustion also showed manifestations of stress more frequently. The criteria that have proven to be the most accurate predictors of burnout syndrome development were as follows: dissatisfaction with pay and rewards, lower advancement opportunity and gaining of benefits, and work climate dissatisfaction. These results point to the need to improve working conditions and the quality of work organization in order to increase job satisfaction and maintain the employees' work productivity. In the area of stress, the most accurate predictors of burnout syndrome were more frequent psychological and physical manifestations, as well as more frequent negative emotional and behavioral reactions toward patients and colleagues. The identification of the stress sources, as well as the personal and contextual factors that contribute

to it, may result in the prevention of stress and the protection of the mental health of the helping profession workers.

Generally, the obtained results should be taken into consideration when designing preventive measures, ie, they could allow early discovery and recognition of burnout syndrome as the result of the ongoing stress and could contribute to fostering a greater work efficiency, enforcing changes in organizational structures, and promoting better health care for patients.

The main limitation of this study refers to its size and survey design, which limits its external validity. The participants were chosen by snowball method according to their availability and readiness to participate in the study, so we cannot make any conclusions about characteristics of non-responders. The second limitation concerns the number of participants, which is relatively small if we take into the account the total number of employees in each profession. The third limitation of this study is that only three groups of mental health workers were included.

The fourth limitation is the subjectivity of estimation. Both job satisfaction and manifestations of occupational stress were determined by employees' self-estimation. The data would be more valid if, along with the subjective criteria, the objective ones, such as absence from work, working productivity, estimation by others (for example, colleagues, supervisors, family members), and psychological health measures were included. The study had a cross-sectional design, which prevented us from observing the changes in time. Longitudinal design, on the other hand, would enable a deeper and better understanding of the nature of the relationship between the burnout syndrome and the variables linked to stress. A longitudinal study would also enable the inquiry into the long-term effects of job satisfaction and the burnout syndrome on other outcomes,

such as the subsequent stress levels, change of workplace, and the degree of motivation and productivity at workplace, as well as their effect on psychological and physical health of employees. Our results may be of use in creating intervention strategies, which should improve and preserve the health of mental health workers. Improvements in the field could also be achieved by conducting qualitative studies, in order to identify those characteristics of the mental health workplace which contribute to the emotional development of the burnout syndrome.

## References

- 1 Ljubotina D, Družić O. Burnout syndrome among helpers and its influencing factors [in Croatian]. *Ljetopis studijskog centra socijalnog rada*. 1996;3:51-64.
- 2 Hudek-Knežević J, Krapić N, Rajter L. The relation between emotional control, perceived stress at work and professional burnout in hospital nurses [in Croatian]. *Psihologijske teme*. 2005;14:41-54.
- 3 Leiter MP, Schaufeli WB. Consistency of the burnout construct across occupations. *Anxiety Stress Coping*. 1996;9:229-43. doi:10.1080/10615809608249404
- 4 Leiter MP, Clark D, Durup J. Distinct models of burnout and commitment among men and women in the military. *J Appl Behav Sci*. 1994;30:63-82. doi:10.1177/002188639430100
- 5 Rees D, Cooper CL. Occupational stress in health service workers in the UK. *Stress Med*. 1992;8:79-90. doi:10.1002/smi.2460080205
- 6 Burrows GD, McGrath C. Stress and mental health professionals. *Stress Med*. 2000;16:269-70. doi:10.1002/1099-1700(200010)16:5<269::AID-SMI888>3.0.CO;2-A
- 7 Myerson S. The doctor's health. Under stress? *Practitioner*. 1990;234:973-6. Medline:2259690
- 8 Persaud R. Reducing the stress in medicine. *Postgrad Med J*. 2002;78:1-3. Medline:11796864 doi:10.1136/pmj.78.915.1
- 9 Lewis JM, Barnhart FD, Howard BL, Carson DI, Nace EP. Work stress in the lives of physicians. *Tex Med*. 1993;89:62-7. Medline:8430388
- 10 Maslach C, Schaufeli WB, Leiter MP. Job Burnout. *Annu Rev Psychol*. 2001;52:397-422. Medline:1148311 doi:10.1146/annurevpsych.52.1.397
- 11 Ajduković M, Ajduković D, Ljubotina D. Mental health care for helpers: A necessary ingredient of trauma recovery training and assistance in war zones. In: Ajduković D, editor. *Trauma recovery training: lessons learned*. Zagreb: Society for Psychological Assistance; 1997. p. 210-6.
- 12 Ogresta J, Rusac S. Sources of occupational stress among psychiatric social workers [in Croatian]. *Socijalna psihijatrija*. 2007;35:3-12.
- 13 Koić E, Mužinić-Masle L, Đorđević V, Vondraček S, Car-Marković A. Primary prevention of burnout syndrome in nurses at General Hospital and Health Center from Virovitica, Croatia. *Acta Clinica Croatica*. 2001;40:259-71.

- 14 Jenić S. The sources of occupational stress and burnout among workers in Centre Lug [in Croatian]. *Ljetopis studijskog centra socijalnog rada*. 2002;9:49-67.
- 15 Hudek-Knežević J, Krapić N, Kardum I. Burnout in dispositional context: the role of personality traits, social support and coping styles. *Rev Psychol*. 2006;13:65-73.
- 16 Friščić Lj. Factors of professional stress and burn-out in the work of social workers in the center of social care Zagreb [in Croatian]. *Ljetopis studijskog centra socijalnog rada*. 2006;13:347-70.
- 17 Schaufeli WB, Enzmann D. *The burnout companion to study and practice: a critical analysis*. London: Taylor and Francis; 1998.
- 18 Freeborn DK. Satisfaction, commitment, and psychological well-being among HMO physicians. *West J Med*. 2001;174:13-9. [Medline:11154654](#) [doi:10.1136/ewjm.174.1.13](#)
- 19 Visser MR, Smets EM, Oort FJ, De Haes HC. Stress, satisfaction and burnout among Dutch medical specialists. *CMAJ*. 2003;168:271-5. [Medline:12566331](#)
- 20 Nirel N, Shirom A, Ismail S. The relationship between job overload, burnout and job satisfaction, and the number of jobs of Israeli consultants [in Hebrew]. *Harefuah*. 2004;143:779-84. [Medline:15603264](#)
- 21 Ozyurt A, Hayran O, Sur H. Predictors of burnout and job satisfaction among Turkish physicians. *QJM*. 2006;99:161-9. [Medline:16490757](#) [doi:10.1093/qjmed/hcl019](#)
- 22 Burisch M. A longitudinal study of burnout: the relative importance of dispositions and experiences. *Work Stress*. 2002;16:1-17. [doi:10.1080/02678370110112506](#)
- 23 Kalliath T, Morris R. Job satisfaction among nurses: a predictor of burnout levels. *J Nurs Adm*. 2002;32:648-54. [Medline:12483086](#) [doi:10.1097/00005110-200212000-00010](#)
- 24 Faragher EB, Cass M, Cooper CL. The relationship between job satisfaction and health: a meta-analysis. *Occup Environ Med*. 2005;62:105-12. [Medline:15657192](#) [doi:10.1136/oem.2002.006734](#)
- 25 Shirom A, Nirel N, Vinokur AD. Overload, autonomy, and burnout as predictors of physicians' quality of care. *J Occup Health Psychol*. 2006;11:328-42. [Medline:17059297](#) [doi:10.1037/1076-8998.11.4.328](#)
- 26 Prosser D, Johnson S, Kuipers E, Szmukler G, Bebbington P, Thornicroft G. Perceived sources of work stress and satisfaction among hospital and community mental health staff, and their relation to mental health, burnout and job satisfaction. *J Psychosom Res*. 1997;43:51-9. [Medline:9263931](#) [doi:10.1016/S0022-3999\(97\)00086-X](#)
- 27 Prosser D, Johnson S, Kuipers E, Dunn G, Szmukler G, Reid Y, et al. Mental health, "burnout" and job satisfaction in a longitudinal study of mental health staff. *Soc Psychiatry Psychiatr Epidemiol*. 1999;34:295-300. [Medline:10422482](#) [doi:10.1007/s001270050147](#)
- 28 Gigantesco A, Picardi A, Chiaia E, Balbi A, Morosini P. Job satisfaction among mental health professionals in Rome, Italy. *Community Ment Health J*. 2003;39:349-55. [Medline:12908648](#) [doi:10.1023/A:1024076209376](#)
- 29 Hiscott RD, Connop PJ. The health and wellbeing of mental health professionals. *Can J Public Health*. 1990;81:422-6. [Medline:2282601](#)
- 30 Moore E, Ball RA, Kuipers L. Expressed emotion in staff working with the long-term adult mentally ill. *Br J Psychiatry*. 1992;161:802-8. [Medline:1483166](#)
- 31 Saindon-Larose D, Rainville T. Work satisfaction of nurses in psychiatry [in French]. *Can Nurse*. 1993;89:47-50. [Medline:8221587](#)
- 32 Bennett P, Evans R, Tattersall A. Stress and coping in social workers: a preliminary investigation. *Br J Soc Work*. 1993;23:31-44.
- 33 Coyle D, Edwards D, Hannigan B, Fothergill A, Burnard PA. Systematic review of stress among mental health social workers. *Int Soc Work*. 2005;48:201-11. [doi:10.1177/0020872805050492](#)
- 34 Spector PE. *Summated rating scale construction: an introduction*. Newbury Park (CA): Sage; 1992.
- 35 Jelec D. *Job burnout among health social workers [master's thesis in Croatian]*. Zagreb: Faculty of Law, Department of Social Work; 2006.
- 36 Prosser D, Johnson S, Kuipers E, Szmukler G, Bebbington P, Thornicroft G. Mental health, "burnout" and job satisfaction among hospital and community-based mental health staff. *Br J Psychiatry*. 1996;169:334-7. [Medline:8879720](#)
- 37 Onyett S, Pillinger T, Muijen M. Job satisfaction and burnout among members of community mental health teams. *J Ment Health*. 1997;6:55-66. [doi:10.1080/09638239719049](#)
- 38 Lloyd C, King R. A survey of burnout among Australian mental health occupational therapists and social workers. *Soc Psychiatry Psychiatr Epidemiol*. 2004;39:752-7. [Medline:15672297](#) [doi:10.1007/s00127-004-0808-7](#)
- 39 Farber BA. Clinical psychologists' perceptions of psychotherapeutic work. *Clin Psychol*. 1985;38:10-3.
- 40 Harper H, Minghella E. Pressures and rewards of working in community mental health teams. *Ment Health Care*. 1997;1:18-21. [Medline:9400199](#)
- 41 Evans S, Huxley P, Gately C, Webber M, Mears A, Pajak S, et al. Mental health, burnout and job satisfaction among mental health social workers in England and Wales. *Br J Psychiatry*. 2006;188:75-80. [Medline:16388074](#) [doi:10.1192/bjp.188.1.75](#)
- 42 Cam O. The burnout in nursing academicians in Turkey. *Int J Nurs Stud*. 2001;38:201-7. [Medline:11223061](#) [doi:10.1016/S0020-7489\(00\)00051-1](#)
- 43 Marriott A, Sexton L, Staley D. Components of job satisfaction in psychiatric social workers. *Health Soc Work*. 1994;19:199-205. [Medline:7959402](#)
- 44 Acker GM. The impact of clients' mental illness on social workers' job satisfaction and burnout. *Health Soc Work*. 1999;24:112-9. [Medline:10340161](#)
- 45 Maslach C. Job burnout: new directions in research and intervention. *Curr Dir Psychol Sci*. 2003;12:189-92. [doi:10.1111/1467-8721.01258](#)
- 46 Zdovc A. Professional burnout at social work centres: research summary [in Slovenian]. *Socialno delo*. 1998; 37:319-27.
- 47 Healy C, McKay M. Identifying sources of stress and job satisfaction in the nursing environment. *Aust J Adv Nurs*. 1999;17:30-5. [Medline:10723283](#)
- 48 Sonnentag S, Frese M. Stress in organizations. In Borman WC, Ilgen DR, Klimoski RJ. *Comprehensive handbook of psychology: Industrial and organizational psychology*. Hoboken (NJ): Wiley; 2003. p. 453-91.
- 49 Fortes-Ferreira L, Peiro JM, Gonzalez-Morales MG, Martin I. Work-related stress and well-being: the roles of direct action coping and palliative coping. *Scand J Psychol*. 2006;47:293-302. [Medline:16869862](#) [doi:10.1111/j.1467-9450.2006.00519.x](#)

- 50 Toker S, Shirom A, Shapira I, Berliner S, Melamed S. The association between burnout, depression, anxiety, and inflammation biomarkers: C-reactive protein and fibrinogen in men and women. *J Occup Health Psychol.* 2005;10:344-62. [Medline:16248685](#) [doi:10.1037/1076-8998.10.4.344](#)
- 51 Martin F, Poyen D, Boudierlique E, Gouvernet J, Rivet B, Disdier P, et al. Depression and burnout in hospital health care professionals. *Int J Occup Environ Health.* 1997;3:204-9. [Medline:9891120](#)
- 52 Tselebis A, Moulou A, Ilias I. Burnout versus depression and sense of coherence: study of Greek nursing staff. *Nurs Health Sci.* 2001;3:69-71. [Medline:11882180](#) [doi:10.1046/j.1442-2018.2001.00074.x](#)
- 53 Dallender J, Nolan P. Mental health work observed: a comparison of the perceptions of psychiatrists and mental health nurses. *J Psychiatr Ment Health Nurs.* 2002;9:131-7. [Medline:11966981](#) [doi:10.1046/j.1365-2850.2002.00414.x](#)