Personal Characteristics and Burnout Syndrome among Teachers of Primary and Secondary Schools

ABSTRACT

Introduction: Burnout syndrome is more often seen in human (assisting) services professions which provide services to population. An interaction between external and internal factors has great importance in burnout syndrome occurrence. According to previous research, personal characteristics, especially neuroticism and extraversion, have a significant role in the development of burnout syndrome.

The aim of study: This research will establish whether the personal characteristics and demographic variables have a predicting role for teachers’ burnout syndrome.

Patients and methods: The research was designed as a cross-sectional study. The sample included 280 teachers. The socio-demographic questionnaire was used to investigate demographic characteristics. Personal characteristics were investigated by Zuckerman - Kuhlman Personality Questionnaire (ZKPQ-50-CC), which included 50 items with binary format response in order to assess five dimensions of personality. Maslach Burnout Inventory (MBI) questionnaire was used to evaluate the burnout syndrome. Testing was conducted in accordance with ethical principles. Statistical analysis included descriptive analysis, analysis of variance and correlation analysis.

Results: Results showed that teachers did not experience significant burnout syndrome at work; a certain number of teachers expressed moderate to high risk of job burnout in one out of three subscales; personal characteristics were predictors of burnout syndrome; neuroticism had a positive correlation with the dimension of emotional exhaustion, and sociability (extraversion-introversion) had negative. There was a statistically significant difference between marital status and age on one side and subscales of emotional exhaustion on the other.

Conclusion: Results of this study indicate the necessity of taking certain preventive measures and the need to explore other predictors of burnout syndrome among teachers.

Keywords: burnout, personality, teachers, exhaustion, depersonalization, achievements.

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Introduction

The World Health Organization - WHO noted stress at work as global epidemic twenty years ago. Stress at work denotes health and mental changes which result out of accumulated long-lasting impact of stressors in the workplace. From medical and sociological aspect, the most important manifestation and consequence of professional stress is a burnout syndrome.3,4

Burnout syndrome is often encountered in “helping professions”, in jobs that provide services to the population. These activities are usually characterized by a lack of clarity regarding the roles, aims and content of work which represents a source of stress and burnout.5 However, studies show that exposure to stressors itself does not necessarily lead to burnout, and that the occurrence of this syndrome requires the interaction of several factors: external (working conditions, pay scales, awards, etc.) and individual factors (personal characteristics, stress coping strategies).4

Different personal characteristics show different effects of professional stress and burnout syndrome. Personal characteristics represent relatively permanent characteristics which determine particular person to feel and behave consistently in similar situations and nowadays are usually defined according to the five-factor model of personality.5 Alternative five-factor model is a classification that includes five broad dimensions: Neuroticism (susceptibility to psychological exhaustion, inability to control impulses, preference for unrealistic ideas and inability to cope with stress); Activity (includes general activity, refers to general need for activity and tendency toward difficult and challenging jobs); Aggression-Hostility (applies to verbal aggression, rough, careless behavior and malice, vindictiveness and impatience); Impulsive sensation seeking (includes two subscales: impulsivity and sensation seeking: the first refers to a tendency to impulsive reactions and the absence of planning while the second implies the need for excitement and engaging in unpredictable situations, as well as the need for constant changes and innovations); Sociability: extraversion-introversion (preference for socializing and parties relates to the enjoyment of parties and contacts with a large number of people). Studies have shown that individuals who are more extrovert have fewer symptoms of burnout than people who are high in neuroticism dimension.6,7

Today, the prevailing opinion is that teaching profession is stressful. The tasks of teachers, in addition to teaching, are: classroom management, assessment, education, discipline, motivation of students, achieving good relations with parents, continuous professional development. Many tasks and different roles can lead to conflict, frustration and stress. According to most researchers, the most important sources of stress and burnout syndrome among teachers are: students’ misbehavior, work overload, poor working environment, unequal workload, shift work, performing certain tasks at home, tact and patience to work with students and their parents, etc.8

The aim of study

Starting from specific requirements of a teaching job and from literature data about the importance of personal characteristics for stress response, the aim of this study is to determine whether personal characteristics have predictive role for the occurrence of burnout syndrome among teachers. Also, the aim is to determine connection of sociodemographic variables and professional burnout.

Patients and methods

This research was designed as a cross-sectional study. It was conducted with the usage of two measuring instruments, that is, the questionnaires, in order to examine two key variables: personal characteristics and professional burnout among teachers. The study also used a sociodemographic questionnaire to explore the relationship between certain demographic variables (age, sex, marital status, work experience, school type and region) and different dimensions of burnout syndrome. The study included 280 teachers in primary and secondary schools in three towns in the Republic of Srpska. The study was conducted in accordance with ethical principles, anonymously and voluntary. Statistical analysis included descriptive analysis, analysis of variance and correlation analysis. Principal criteria for testing the statistical significance between selected variables was: p > 0.05 - no statistically significant differences; p <0.05 - statistically significant difference; p <0.01 - statistically high significant difference. Personal characteristics were examined with the usage of Zuckerman - Kuhlman Personality Questionnaire (ZKPQ-50-CC), which includes 50 items with binary format response.5 The questionnaire represents a short version of the ZKPQ questionnaire and contains five 10-item scales aimed to assess dimensions of alternative five-factor model of personality. The dimensions are as follows: Activity (the Act), Aggression-Hostility (Agg-Host), Impulsive sensation seeking (ImpSS), Neuroticism-Anxiety (N-Anx) and Sociability (Sy).

Maslach Burnout Inventory (MBI) questionnaire was used to evaluate the burnout syndrome. It consisted of three structural units and measured: a) feeling of emotional exhaustion (Emotional Exhaustion - EE) - 9 statements; b) depersonalization (DP Depersonalization-) - 5 statements and c) feeling of personal success (Personal Accomplishment - PA) - 8 statements. The questionnaire consisted of 22 statements that were scored by the Likert scale of 0-6 (0-never, 6- each day). A total score was plausible in the range of 0-132. For EE subscale, score ≥ 26 presents a high risk, 19-26 middle risk and ≤ 18 low risk. For DP subscale, score ≥ 9 presents high risk and for PA subscale, score ≥ 40 presents low risk, from 39 to 34 middle risk and ≤ 33 high risk.
risk. The general conclusion about the presence of burnout syndrome cannot be drawn just on the basis of the PA scale. It is relevant only when it is confirmed by EE and DP scales.

Sociodemographic questionnaire was designed for this study and it contained basic information about respondents (gender, age, work experience, employment, marital status, type of school, nicotine, alcohol, etc.).

Results
Out of the total sample number, 180 (64.29%) respondents were primary school teachers and 100 (35.71%) were secondary school teachers. The study included 89 (31.79%) males and 191 (68.21%) females. The average age of respondents was M = 39.01 (SD = 4.81) years, the average work experience M = 14.36 (SD = 10.12) years, the average exposed work experience M = 11.84 (SD = 10.12) years. 201 respondents (71.79%) were married, 60 (21.43%) unmarried, 10 (3.57%) divorced, 4 (1.43%) were widowers, 3 (1.07%) in extramarital relationship and 2 (0.71%) lived separately.

Table 1. presents the results of Maslach Burnout Inventory (MBI) questionnaire which shows a low risk of burnout syndrome in all three subscales. With the usage of Cronbach’s alpha coefficient of reliability it was determined that subscales EE and PA satisfy the criteria of internal consistency as opposed to the subscale DE which need to be taken with reserve.

Table 2. The results of Zuckerman - Kuhlman Personality Questionnaire (ZKPQ-50-CC)

| Personality Questionnaire - subscales | Arithmetic mean (M) | Standard deviation (SD) | Range | Cronbach’s alfa |
|-------------------------------------|---------------------|-------------------------|-------|-----------------|
| Activity (Act)                      | 5.50                | 2.53                    | 10    | 0.7407          |
| Aggression - Hostility (Agg-Host)   | 2.55                | 1.79                    | 9     | 0.4985          |
| Impulsive sensation seeking (ImpSS) | 3.37                | 2.13                    | 10    | 0.6560          |
| Neuroticism - anxiety (N-Anx)       | 2.30                | 2.09                    | 9     | 0.7179          |
| Sociability (extroversion and introversion) (Sy) | 6.00 | 2.22 | 10 | 0.6452 |
| Total                               | 19.72               | 5.19                    | 33    | 0.6656          |

The subscale sociability (extroversion and introversion) had the highest score, followed by the activity subscale, while the neuroticism subscale had the lowest score. By Cronbach’s alpha coefficient of reliability, it was found that the Aggression - Hostility (Agg-Host) subscale did not fulfill the internal consistency, and should be taken with reserve. (Table 3.)

There was no significant correlation between age and personal characteristics.

Table 3. Correlation between burnout syndrome and personal characteristics of respondents

| Professional Burnout - Personality Correlation Coefficient, r |
|---------------------------------------------------------------|
| Emotional exhaustion (EE) - Activity (Act)                    | -0.0245 |
| Emotional exhaustion (EE) - Aggression - hostility (Agg-Host) | 0.1609  |
| Emotional exhaustion (EE) - Sociability (extroversion and introversion) (Sy) | -0.3817 |
| Emotional exhaustion (EE) - Impulsive Sensation seeking (ImpSS) | 0.0600  |
| Emotional exhaustion (EE) - Neuroticism - anxiety (N-Anx)     | 0.4901  |
Medium significant positive correlation coefficient was found between neuroticism and emotional exhaustion whereas negative correlation was found between emotional exhaustion and sociability, which implied that respondents with a higher scale of neuroticism also had a higher sense of emotional exhaustion, and respondents with a higher scale of sociability had a lower sense of emotional exhaustion. (Table 3.) There was no significant correlation between personal characteristics and personal achievements. Analysis showed (Table 4.) that subjects who had differed in gender, type of school, geographical area (region), education (college-high school) and the use of alcohol did not differ significantly with regard to the result of the MBI questionnaire subscale. Statistically high significant difference was found in the emotional exhaustion and marital status subscales, as well as the total work experience, in a way that subjects with more total years of service and single ones had higher scores on emotional exhaustion subscale. The difference also existed in the subscale of personal achievements regarding the consumption of nicotine and indicating that smokers showed a higher score on this scale.

### Table 4. Burnout syndrome and demographic characteristics of the respondents

| Analysis                                      | p         | Remark                        |
|----------------------------------------------|-----------|-------------------------------|
| Emotional exhaustion (EE) - school           | 0.6247    | No significant difference     |
| Emotional exhaustion (EE) - region           | 0.3245    | No significant difference     |
| Emotional exhaustion (EE) - sex              | 0.3857    | No significant difference     |
| Emotional exhaustion (EE) - age              | 0.5047    | No significant difference     |
| Emotional exhaustion (EE) - marital status   | 0.0035    | Highly significant difference |
| Emotional exhaustion (EE) - education        | No conditions for testing |
| Emotional exhaustion (EE) - work position    | 0.5125    | No significant difference     |
| Emotional exhaustion (EE) - nicotine         | 0.4709    | No significant difference     |
| Emotional exhaustion (EE) - alcohol          | No conditions for testing |
| Emotional exhaustion (EE) - total work experience | 0.0037  | Highly significant difference |
| Personal achievements (PA) - school          | 0.0907    | No significant difference     |
| Personal achievements (PA) - region          | 0.9649    | No significant difference     |
| Personal achievements (PA) - sex             | 0.2221    | No significant difference     |
| Personal achievements (PA) - age             | 0.7276    | No significant difference     |
| Personal achievements (PA) - marital status  | 0.2154    | No significant difference     |
| Personal achievements (PA) - education       | 0.5323    | No significant difference     |
| Personal achievements (PA) - work position   | 0.3146    | No significant difference     |
| Personal achievements (PA) - nicotine        | 0.0318    | Significant difference       |
| Personal achievements (PA) - alcohol         | 0.2158    | No significant difference     |
| Personal achievements (PA) - total work experience | 0.7226  | No significant difference     |
| Depersonalization (DP) - school              | 0.0840    | No significant difference     |
| Depersonalization (DP) - region              | No conditions for testing |
| Depersonalization (DP) - sex                 | 0.5700    | No significant difference     |
| Depersonalization (DP) - age                 | No conditions for testing |
| Depersonalization (DP) - marital status      | No conditions for testing |
| Depersonalization (DP) - education           | No conditions for testing |
| Depersonalization (DP) - work position       | No conditions for testing |
| Depersonalization (DP) - nicotine            | 0.6387    | No significant difference     |
| Depersonalization (DP) - alcohol             | No conditions for testing |
| Depersonalization (DP) - total work experience | No conditions for testing |
Discussion

A large number of studies which have been carried out in other countries showed that professional burnout is a growing phenomenon in teaching profession with significant medical and social consequences. Contrary to findings in foreign studies, this study showed that majority of respondents was exposed to a low risk of burnout at work. When it came to the results achieved on the subscale of professional burnout, it was evident that average results were lower than in some other professions, medical for example.9-11 Other researchers in our country and surrounding areas have also come to similar results.12-15 High level of emotional exhaustion was expressed by approximately 4% of the respondents, medium by 10%, while high depersonalization was experienced by 2.8%. A high degree of burnout in the dimension of personal achievements was reported by 18%, and 27% of teachers reported a medium degree.

In a study conducted in the Republic of Srpska, high level of EE was found in 16.2% of teachers and medium level in 67.2%. High level of DP was found in 14% of the respondents, which was slightly higher in comparison to our study. However, high level of burnout was not found in this study as well.16 According to the results of previous studies, personal characteristics have a significant proportion in stress experience and its overcome at work.17 It has been shown that people who have no control over the events, those who use the avoiding style to solve problems and more passive ones are more susceptible to burnout. On the other side, individuals with self-confidence, which is the active way to deal with stress, are less susceptible to burnout. In many studies it was concluded that, when it comes to personal characteristics, neuroticism is the most significant predictor of burnout.7, 17

Although a low level of burnout was found in this study, similar to most previous studies, connection pattern with neuroticism was also shown.12, 18 Thus, the positive correlation between neuroticism and risk of professional burnout was confirmed in this study (neuroticism-emotional exhaustion, medium correlation coefficient r = 0.4901).

In the questionnaire of personality, the subscale sociability (extroversion and introversion) (Sy) showed the highest score, but it did not show a significant correlation with the burnout subscales. Medium negative correlation was found between the emotional exhaustion subscale and sociability subscale (r = -0.3817). Similar to other studies, it was shown here that people with higher extraversion perceive potential stressors as a challenge, which was evidenced by negative correlations between subscales of emotional exhaustion and depersonalization.19, 20

In studies on burnout syndrome among teachers, many authors examine the relationship between demographic variables and different dimensions of this syndrome. Commonly studied demographic variables are age, gender, marital status, level of education and length of working experience. Surveys, however, point to the inconsistency and contradictions in their results. According to some studies regarding the age and work experience, it was shown that younger teachers experienced more emotional exhaustion than the older ones, which was explained by their unrealistic expectations of teaching profession. They attributed this to the large amount of work, to their constant need for support that is often insufficient and need to be equally successful in the profession as their more experienced colleagues. On the other hand, some studies have shown that teachers with more years of service showed significantly higher emotional exhaustion from beginners.18 According to some researchers, beginning teachers experience less stress because they are considered more capable than older colleagues in the use of modern methods of education whilst demonstrating greater willingness to acquire new information and skills.20, 21 It is also known that in all other professions, a significant source of stress is a constant need for improvement and need to follow the news and technological developments in professions. Some research has found that women and single (unmarried) people were more susceptible to burning.19 Our research did not determine the predictive role of demographic variables, except when it came to marital status and total years of service on the EE subscale and smoking in the PL subscale. In consideration of work experience, the explanation may be the fact that our education, as well as the entire society, undergoes reforms and it is a stressful process, especially for older teachers. While it is reasonable to assume that stress and burnout among teachers might be influenced by students’ age and school type, there are few studies that have examined this relationship. This study found no statistically significant differences between teachers working in primary and secondary schools.

Conclusion

The research results have showed that our teachers do not experience significant professional burnout. Despite the fact that this study found low levels of burnout, it also presented personal characteristics as predictors of burnout syndrome. Excluding the marital status and working experience, the rest of the examined demographic variables were not predictors of burnout syndrome. However, the results showed that there were a number of teachers who were at moderate and high levels of burnout in one out of three subscales. In order to reduce the level of professional burnout among these teachers, it is advisable to make an equal distribution of work responsibilities among teachers, and introduce them to the techniques of coping with stress in the workplace. Moreover, the results of this study demonstrated the need for examining other predictors of burnout such as social support, attitudes, motivation, job satisfaction and other professional hazards.
Osobine ličnosti i sindrom sagorijevanja kod nastavnika osnovnih i srednjih škola

SAŽETAK

Uvod: Sindrom sagorijevanja se češće sreće kod humanističkih (pomažućih) profesija koje pružaju usluge stanovništvu. U nastanku burnout sindroma veliki značaj ima interakcija spoljašnjih i unutrašnjih faktora. Prema dosadašnjim istraživanjima osobina ličnosti, naročito značajnu ulogu u nastanku sindroma sagorijevanja imaju neuroticizam i ekstroverzija.

Cilj istraživanja: Ovim istraživanjem će se utvrditi imaju li osobine ličnosti i sociodemografske varijable prediktivnu ulogu za profesionalno sagorijevanje kod nastavnika.

Ispitnici i metode: Istraživanje je dizajnirano kao studija presjeka. Uzorak je obuhvatio 280 nastavnika. Sociodemografski upitnik je korišćen za ispitivanje sociodemografskih karakteristika. Osobine ličnosti ispitivane su pomoću upitnika Zuckerman –
Kuhlman Personality Questionnaire (ZKPQ-50-CC), koji obuhvata 50 stavki sa binarnim formatom odgovora, za procjenu pet dimenzija ličnosti. Za evaluaciju sindroma sagorijevanja korišćen je upitnik Maslach Burnout Inventory (MBI). Ispitivanje je obavljeno u skladu sa etičkim principima. Statistička obrada obuhvatala je deskriptivnu analizu, analizu varijanse i korelacionu analizu.

Rezultati: Ispitivanja su pokazala da nastavnici značajno ne doživljavaju sagorijevanje na poslu; određen broj nastavnika iskazuju umjeren do visok rizik sagorijevanja na jednoj od tri supskale; osobine ličnosti su prediktori sindroma sagorijevanja; neuroticizam ima pozitivnu korelaciju sa dimenzijom emocionalne iscrpljenosti, a socijabilnost (ekstroverzija-introverzija) negativnu. Postoji statistički visoko značajna razlika između bračnog stanja i godina starosti s jedne, i supskale emocionalne iscrpljenosti, s druge strane.

Zaključak: Rezultati ovog istraživanja upućuju na potrebu preduzimanja određenih preventivnih mjera, kao i na potrebu istraživanja i drugih prediktora sindroma sagorijevanja kod nastavnika.

Ključne riječi: burnout, ličnost, nastavnici, iscrpljenost, depersonalizacija, postignuća.