

# Original article

# **Analysis of stress level and burnout syndrome** among physicians of different medical specialties in primary health care

Kosana Stanetić<sup>1,2</sup>, Brankica Marković<sup>1</sup>, Verica Petrović<sup>1,2</sup>, Bojan Stanetić<sup>2,3</sup>

<sup>1</sup>Primary Health Center Banja Luka, The Republic of Srpska, Bosnia and Herzegovina

<sup>2</sup>University of Banja Luka, Faculty of Medicine, Banja Luka, The Republic of Srpska, Bosnia and Herzegovina

<sup>3</sup>University Clinical Center Banja Luka, The Republic of Srpska, Bosnia and Herzegovina

Received - Primljen: 04/11/2018 Accepted - Prihvaćen: 13/02/2019

Corresponding author: Prof. Kosana Stanetić, MD, PhD Sime Matavulja bb, 78000 Banja Luka stanetic.kosana@gmail.com

Copyright: ©2019 Stanetić K, et al. This is an Open Access article distributed under the terms of the Creative Commons Attribution 4.0 International (CC BY 4.0) license.

#### **Summary**

**Introduction**. Burnout syndrome is a common problem among healthcare workers. The aim of the study was to investigate the level of stress, components of burnout syndrome and the most common causes of workplace stress among the physicians working in the Primary Health Care Center Banja Luka, after which the obtained results concerning family physicians and the physicians of other specialties were compared.

Methods. The observational study was conducted by interviewing physicians during the period March to May 2018. All employed physicians were provided with the following questionnaires: The socio-demographic questionnaire, The guestionnaire for self-assessment of the level of stress, The questionnaire about the most frequent causes of stress at work and the Maslach Burnout Inventory.

Results. The study included 211 physicians, out of a total of 246 physicians (127 family physicians and 84 physicians of other specialties) working in the Primary Health Care Center Banja Luka. There was a significantly higher level of stress (p = 0.011), emotional exhaustion (p < 0.001) and depersonalization (p < 0.001) among family physicians compared to the physicians of other specialties. There was a significant difference in the presence of all causes of stress among family physicians, except the stress concerning the patients requiring emergency care. The multivariate logistic regression analysis found that stress was significantly associated with emotional exhaustion in both groups and with personal accomplishment in family physicians. In family physicians, there was a significant association between a high level of depersonalization and personal accomplishment. In physicians of other specialties significant association was found between education and emotional exhaustion as well as personal accomplishment, and between female gender and high level of depersonalization.

Conclusion. The level of stress and the burnout syndrome were considerably more present in family physicians compared to physicians of other

Keywords: stress, burnout syndrome, causes of stress, family physicians, primary health care

## Introduction

Burnout syndrome is a psychological syndrome of emotional exhaustion, depersonalization and reduced personal accomplishment [1]. The syndrome usually develops in persons working with other people. There is a higher risk for burnout syndrome onset among medical profession [2, 3].

Burnout syndrome is characterized by psychical or emotional exhaustion, fatigue and depression, whereas there is a grater accent on psychical than physical symptoms. Affected persons mostly complain about fatigue, malaise, sadness, pessimism, constant tightness, hypersensitivity, insomnia, as well as about physical symptoms (headache, back pain, insomnia, gastric problems etc.). To alleviate the symptoms, affected persons often use alcohol, medicines or drugs [4].

Chronic stress at workplace mostly precedes the burnout syndrom occurrence. During the last few decades, all of us have been exposed to different types of stress, mostly caused by our working environment, which leads to professional stress. Professional stress presents one of the most considerable harms for health care workers who are exposed to numerous workplace changes and demands on a daily basis. If the causes of stress are considered in relation to the working environment, then we can speak about workplace stress representing the greatest risk factor for the burnout syndrome development [5].

In the Republic of Srpska and Bosnia and Herzegovina, there is a small number of studies on the presence of stress in the workplace, as well as on the burnout syndrome in health professionals. Moreover, studies the aim of which would be to investigate the most common causes of workplace stress among physicians are not conducted. The aim of the present study was to investigate the presence of workplace stress and the risk for burnout syndrome onset in physicians working in the Primary Health Care Center, as well as to compare the obtained results concerning family physicians and physicians of other specialties.

#### Methods

Design and Setting. The research is an observational study, conducted by interviewing doctors working in the Primary Health Care Center Banja Luka. The research was anonymous, and all examinees were informed about the purpose of the research. The physicians working in the Primary Health Care Center Banja Luka were invited to participate in the study and to fill in: the Socio-demographic questionnaire, the Questionnaire for self- assessment of the level of stress (Girdin, Everly, Dusek, 1996) [6], the Questionnaire about the most frequent causes of workplace stress and the Maslach Burnout Inventory (MBI) [7]. The study was conducted during the period March to May 2018. The Ethics Committee of the Primary Health Care Center Banja Luka evaluated and approved the study protocol.

Participants. The study included 211 physicians, out of a total of 246 physicians working in the Primary Health Care Center Banja Luka (85.77% response rate). The study was anonymous, and the participants voluntarily participated in it by filling in the above-mentioned questionnaires. The physicians working in different departments and of various specialties were interviewed: 127 family physicians, 22 emergency physicians, 4 psychiatrists, 5 physiatrists, 7 gynaecologists, 13 paediatricians, 5 radiologists, 4 epidemiologists, 3 medical biochemists and 21 dentists. The participants were divided into two groups: the first group consisted of family physicians, while the second group included the physicians working in other departments of the Primary Health Care Center.

Questionnaires and measuring. As research tools, we used the Socio-demographic questionnaire, the Questionnaire for self-assessment of the level of stress (Gyrdin, Everly, Dusek), The Questionnaire about the most frequent causes of stress at work and the Maslach Burnout Inventory (MBI).

The socio-demographic questionnaire included the data on gender, age, workplace, years of service, marital status, the number of children in family, shift work (one or two shifts), as well as the data on weekend and holiday work and additional tasks performance.

The Questionnaire for self-assessment of the level of stress contains ten questions, and includes four basic factors of overworking (chronic lack of time, exaggerated responsibility, lack of support and exaggerated self-expectation and expectations from one's surrounding). Participants answer the questions as follows: almost always (4 points), often (3 points), rarely (2 points) and almost never (1 point). The total score is the sum of all the points, and the maximal score is 40. The participants whose total score is between 25 and 40 are classified as the ones with high level of stress, while those whose total score is  $\leq 25$  are classified as the ones whose stress level is normal.

The questionnaire about the most frequent causes of workplace stress was created to meet the needs of the research.

The original version of the Maslach Burnout Inventory contains 22 questions and the participants answer them as follows: never (0 point), a few times per year (1 point), once a month (2 points), a few times per month (3 points), once a week (4 points), a few times per week (5 points) and daily (6 points). All the questions are divided into three subscales that serve as indicators for the evaluation of the level of emotional exhaustion, depersonalization and personal accomplishment. The first subscale, concerning the emotional exhaustion level, accentuates the exaggerated requests directed towards service providers. The second subscale measures the presence of depersonalization characterized by negative relation between service providers and receivers. The third subscale measures the level of personal accomplishment. Emotional exhaustion is evaluated on the basis of 9 answered questions, and the maximal score is 54 (< 17 score indicates low; 18-29 moderate and >30 high level of emotional exhaustion). Depersonalization is tested by means of 5 questions, and the maximal score is 30 (< 5 score indicates low; 6-11 moderate and >12 high level of depersonalization), while personal accomplishment is evaluated by means of 8 answered questions and the maximal score is 48 (< 33 score indicates high; 34-39 moderate and >40 low level of personal accomplishment).

Statistical methods. The data obtained in the research were statistically processed using the SPSS-20 program. The descriptive analysis in the form of frequencies and percentages was used for sample analysis, as well as the analysis of answers to each question in turn. We used  $\chi^2$  test for categorical variable interactions. The multivariate logistic regression models were used to assess the association between burnout syndrome components and all other variables examined in the study. The level of significance was p < 0.05in the applied analytical methods.

# Results

The study included 211 physicians, out of 246 physicians employed at the Primary Health Care Center Banja Luka (85.77% response rate). There were 127 family physicians, while the remaining 84 examinees were from other departments of the Primary Health Care Center. The majority of participants were female (85.8%), but there was a statistically significant higher number of female physicians (p < 0.001) among family physicians compared to physicians working in other departments. Participants differed in terms of age and years of service. The majority of interviewed physicians were married (77.7%), and the greatest number of them had two children in the family (45.1%). More than half of the participants worked in shifts (81.0%), and only 12.3% of interviewed physicians were engaged on additional jobs (Table 1).

The statistical processing ( $\chi^2$  test) of obtained results showed that family physicians had statistically significant higher level of stress (p = 0.011) compared to the physicians in other departments. There was statistically significant higher level of emotional exhaustion (p < 0.001) and depersonalization (p < 0.001) among family physicians compared to physicians of other specialties. There was no a statistically significant difference in the level of personal accomplishment (p = 0.540) between family physicians and other doctors (Table 2).

The physicians included in the study filled in the questionnaire about the most common causes of workplace stress. The analysis revealed that the most common causes of stress were: administrative burden, constant legislation change, a great number of patients and requests of health care insurance. Comparing the results between two groups of participants (family physicians and physicians of other specialties), it was found that family physicians had statistically significant: burden concerning a great number of patients (p = 0.048); lack of time to examine all patients (p = 0.003); treatment of acute health problems (p = 0.030); treatment of chronic health problems (p = 0.001); greater administrative burden (p < 0.001); burden concerning constant legisla-

Tabela 1. Socio-demographic data of examined physicians employed at the Primary Health Care Center Banja Luka

	Physicians from				
Variables	Family medicine N (%)	Other departments N (%)	Total N (%)	р	
Gender	_ ()				
Male	7 (5.5)	23 (27.4)	30 (14.2)	< 0.001	
Female	120 (94.5)	61 (72.6)	181 (85.8)		
Age (years)	10 (01 5)	22 (20.4)	70 (0.4.4)		
≤ 42 43 to 50	40 (31.5)	32 (38.1)	72 (34.1)	0.531	
43 to 30 51 ≥	43 (33.9) 44 (34.6)	22 (26.2) 30 (35.7)	65 (30.8) 74 (35.1)		
	44 (34.0)	30 (33.7)	74 (33.1)		
<i>Length of service (years)</i> ≤ 13	20 (20 0)	22 (20.2)	71 (22.6)		
≤ 13 14 to 23	38 (29.9) 47 (37.0)	33 (39.3) 22 (26.2)	71 (33.6) 69 (32.8)	0.201	
≥ 24	42 (33.1)	29 (34.5)	71 (33.6)		
Marital status	42 (33.1)	27 (34.0)	71 (33.0)		
Married	103 (81.1)	61 (72.6)	164 (77.7)		
Unmarried	14 (11.0)	13 (15.5)	27 (12.8)	0.202	
Divorced	9 (7.1)	6 (7.1)	15 (7.1)	0.202	
Widowed	1 (0.8)	4 (4.8)	5 (2.4)		
The number of children in family	( )				
No children	22 (17.3)	15 (17.9)	37 (17.5)		
One child	37 (29.1)	27 (32.1)	64 (30.3)	0.444	
Two children	56 (44.2)	39 (46.4)	95 (45.1)		
Three children	12 (9.4)	3 (3.6)	15 (7.1)		
Shift work					
Yes	108 (85.0)	63 (75.0)	171 (81.0)	0.051	
No	19 (15.0)	21 (25.0)	40 (19.0)		
Being on call during night,					
weekends, holidays					
No	37(29.1)	43 (51.2)	80 (37.9)	0.001	
Yes	90 (70.9)	41 (48.8)	131 (62.1)		
Engagement on additional jobs					
No	113 (89.0)	72 (85.7)	185 (87.7)	0.309	
Yes	14 (11.0)	12 (14.3)	26 (12.3)		

Tabela 2. Comparison between the level of stress and three components of burnout syndrome of family doctors and doctors in other departments

Variables	Level	Family doctors N (%)	Other doctors N (%)	Total N (%)	$\chi^2$	р
Stress	Low High	21 (16.5) 106 (83.5)	26 (31.0) 58 (69.0)	47 (22.3) 164 (77.7)	6.070	0.011
Emotional exhaustion	Low Moderate High	17 (13.4) 27 (21.3) 83 (65.3)	27 (32.1) 28 (33.3) 29 (34.6)	44 (20.9) 55 (26.1) 112 (53.0)	20.411	< 0.001
Depersonalization	Low Moderate High	38 (29.9) 54 (42.5) 35 (27.6)	53 (63.1) 17 (20.2) 14 (16.7)	91 (43.2) 71 (33.6) 49 (23.2)	22.944	< 0.001
Personal accomplishment	Low Moderate High	38 (29.9) 44 (34.6) 45 (35.5)	28 (33.3) 23 (27.4) 33 (39.3)	66 (31.3) 67 (31.8) 78 (36.9)	1.232	0.540

tion change (p = 0.000); requests of health care insurance (p < 0.001); solving patients' complex problems (p = 0.042) and dealing with exaggerated requests of patients with chronic health problems (p < 0.001). Where emergency care was concerned, there was no statistically significant difference (p = 0.129) between two groups of examinees (Tabela 3).

The multivariate logistic regression models were used to assess the relationship between analysed variables (gender, age, years of service, marital status, the number of children in family, shift work, data concerning engagement on additional jobs, levels of education) and components of burnout syndrome at workplace among family physicians and physicians working in other departments of Primary Health Care Center Banja Luka. The results of the analysis showed that female gender and high level of stress were selected as a statistically significant variables associated with emotional exhaustion in a group of family physicians, so females and physicians

Tabela 3. The presence of some causes of workplace stress in family physicians and physicians of other specialties

	Family doctors				Other doctors							
Question	None N (%)	Some N (%)	Moderately N (%)	Greatly N (%)	Mostly N (%)	None N (%)	Some N (%)	Moderately N (%)	Greatly N (%)	Mostly N (%)	$\chi^2$	р
Burden of a great number of patients	3 (2.4)	2 (1.6)	17 (13.4)	53 (41.7)	52 (40.9)	5 (6.0)	5 (6.0)	19 (22.6)	31 (36.8)	24 (28.6)	9.611	0.048
Lack of time to examine all of the patients	4 (3.1)	9 (7.1)	26 (20.5)	54 (42.5)	34 (26.8)	5 (6.0)	16 (19.0)	24 (28.6)	31 (36.9)	8 (9.5)	16.387	0.003
Emergency patients	11 (8.7)	26 (20.5)	60 (47.1)	19 (15.0)	11 (8.7)	15 (17.9)	17 (20.2)	27 (32.2)	17 (20.2)	8 (9.5)	7.134	0.129
Patients with acute health problems	13 (10.2)	20 (15.7)	57 (45.0)	29 (22.8)	8 (6.3)	17 (20.2)	16 (19.0)	23 (27.5)	17 (20.2)	11 (13.1)	10.714	0.030
Patients with chronic health problems	6 (4.7)	12 (9.4)	35 (27.6)	44 (34.7)	30 (23.6)	10 (11.9)	21 (25.0)	17 (20.2)	28 (33.4)	8 (9.5)	17.961	0.001
Administration burden	2 (1.6)	0 (0.0)	13 (10.2)	44 (34.6)	68 (53.6)	6 (7.1)	14 (16.7)	16 (19.0)	24 (28.6)	24 (28.6)	35.967	0.000
Constant legislation change	2 (1.6)	3 (2.4)	17 (13.4)	42 (33.1)	63 (49.5)	11 (13.1)	23 (27.4)	19 (22.6)	17 (20.2)	14 (16.7)	57.110	0.000
Requests of health care insurance	2 (1.6)	6 (4.7)	15 (11.8)	51 (40.2)	53 (41.7)	25 (29.8)	19 (22.6)	17 (20.2)	13 (15.5)	10 (11.9)	72.643	0.000
Solving patients' complex problems	5 (3.9)	12 (9.4)	51 (40.3)	39 (30.7)	20 (15.7)	9 (10.7)	13 (15.5)	20 (23.8)	31 (36.9)	11 (13.1)	9.893	0.042
Exaggerated requests of patients with chronic diseases	2 (1.6)	9 (7.1)	30 (23.6)	50 (39.4)	36 (28.3)	12 (14.3)	12 (14.3)	22 (26.2)	19 (22.6)	19 (22.6)	20.054	0.000

Tabela 4. The association of analyzed variables and components of burnout syndrome in both groups of participants

		Family medicine (n=127)		Other departs (n=84)	nents
Dependent variable	Variables	OR (95% CI)	p	OR (95% CI)	p
Emotional exhaustion- high level	Gender, female	7.82 (0.98-62.36)	0.05	0.82 (0.22-3.01)	0.76
	Education degree	0.94 (0.79-1.12)	0.48	1.25 (1.03-1.53)	0.03
	Stress (HL)	0.06 (0.01-0.28)	<0.01	0.15 (0.03-0.68)	0.01
Depersonalization- high level	Female	1.71 (0.16-17.97)	0.66	0.15 (0.03-0.68)	0.01
	Personal accomplishment (LL)	0.16 (0.04-0.58)	<0.01	0.49 (0.08-2.93)	0.44
Personal accomplishment- low level	Education degree	1.01 (0.87-1.18)	0.90	0.75 (0.62-0.92)	< 0.01
	Stress (HL)	6.88 (1.83-25.88)	<0.01	2.24 (0.66-7.58)	0.20
	Depersonalization (HL)	0.16 (0.04-0.61)	<0.01	0.79 (0.16-3.81)	0.77

with considerable amount of stress had statistically significant higher level of emotional exhaustion. In a group of family physicians, there was a statistically significant association between a high level of depersonalization and a low level of personal accomplishment. High stress level in family physicians led to low level of personal accomplishment.

In a group of interviewed physicians working in other departments, the results of the multivariate logistic regression analysis showed that there was a statistically significant association between education as well as high level of stress and emotional exhaustion. Female gender was selected as a statistically significant independent variable associated with a high level of depersonalization, but there was a statistically significant association between level of education and low level of personal accomplishment (Table 4).

# **Discussion**

Our study included 211 physicians in primary health care, 127 family physicians and 84 physicians of other specialties. The results obtained showed high level of stress and burnout syndrome in all interviewed physicians, but family physicians had statistically significant higher level of stress, emotional exhaustion and depersonalization compared to physicians of other specialties. There was statistically significant higher presence of all causes of stress among family physicians, except for the patients requiring emergency care.

The results of studies from other countries showed high physician vulnerability in burnout syndrome occurrence. Large-scale study on the presence of burnout syndrome in family physicians that included 12 European countries (Bulgaria, Croatia, France, Greece, Hungary, Italy, Poland, Portugal, Sweden, Spain, The United Kingdom and Turkey) showed that 43% of participants had high level of emotional exhaustion, 35% of them had high level of depersonalization, 32% had low level of personal accomplishment, and 12% showed symptoms of burnout syndrome in all three dimensions. The conclusion is that burnout syndrome is a common problem in primary care physicians [8]. In our study, 53% of physicians had high level of emotional exhaustion, 23.2% of them had high level of depersonalization, and 31.3% had low level of personal accomplishment.

Research results in Lybia also showed that physicians in primary health care had high level of emotional exhaustion (69.5%). Patient pressure, disorganized patient flow at clinics, exaggerated paperwork and poor cooperation with colleagues were identified as the most important causes of emotional exhaustion [9].

In the Republic of Srpska (Bosnia and Herzegovina) similar studies were conducted in 2011 and 2015. In 2011 the study conducted among family physicians of the Republic of Srpska (Bosnia and Herzegovina) included 259 family physicians working in seven primary health care centers, as well as family physicians doing their residency programs. The number of physicians with high level of stress was extremely high (75.3%). The majority of interviewed physicians had high level of emotional exhaustion (46.0%), high level of depersonalization (21.3%) and low level of personal accomplishment (43.1%) [10]. During 2015 the study examining the level of stress and burnout syndrome among physicians working in hospital and family physicians was conducted in the Republic of Srpska. The study comprised 151 physicians, out of which 49% were family physicians and 51% hospital physicians. The results of the study showed that 51.7% of participants had high level of stress (52.7% of family physicians and 50.6% of hospital physicians, respectively). High level of emotional exhaustion was found in 27.2% of participants (29.7% of family physicians and 24.6% of hospital physicians, respectively); high level of depersonalization in 23.8% of participants (25.7% of family physicians and 22.1% of hospital physicians, respectively), while low level of personal accomplishment was found in 39.7% of physicians (37.8% of family physicians and 41.6% of hospital physicians, respectively). Although occupational stress exposure was higher in family physicians than in hospital physicians, there was no statistically significant difference [11].

Considering the results of previous studies conducted in the Republic of Srpska, it is obvi-

ous that there is greater percentage of emotional exhaustion in our study (53.1%) compared to studies carried out in 2011 (46%) and 2015 (29.7%). As it is case in our study, the results of study carried out in Denmark have showed that there is an increasing prevalence of high level of burnout syndrome in family physicians. In this country, the level of burnout syndrome among family physicians increased from 2.8% in 2004 to 5.3% in 2012. It is considered that the causes of the syndrome represent a combination of individual factors and surrounding conditions. However, the consequent effect of the syndrome on family physicians and their patients has not received enough testing [12]. The results of large-scale study in Belgium, conducted among physicians and nurses, have showed that 6% of health professionals have displayed the symptoms of burnout syndrome and also have had positive score in all three dimensions (emotional exhaustion, depersonalization, personal accomplishment), while 13% of them have had positive score in two dimensions [13]. Positive correlation have been found where workload, role conflicts, emotional burden and work-home interference have been concerned. On the other hand, negative correlation have been found where learning and development opportunities, as well as co-workers support have been concerned.

The review article from the USA has shown that burnout syndrome among physicians in this country has reached epidemic proportions, and has been present in approximately 50% of medical students, resident physicians and practicing physicians. There has been negative impact of the syndrome on physicians themselves, as well as patients, associates, family members, friends and the healthcare system as a whole. The possible causes of burnout syndrome have been considerable changes in the society, medical profession and healthcare system [14]. The results of our study were similar. The presence of emotional exhaustion was found in approximately 50% of participants, almost one-third of them had low level of personal accomplishment, while high level of depersonalization was found in approximately one-fourth of physicians. As it has been shown in the USA study, the causes of burnout syndrome are related to constant changes in the society.

During the last fifteen years, the primary health care reform has been effectively implemented in the Republic of Srpska. The reforms had negative impact on physicians' health condition, which caused the level of burnout syndrome to increase. Although physicians of various specialties work in primary health care, the most significant changes concerning healthcare reform take place in family medicine. The healthcare system reform in the Republic of Srpska built family medicine model into primary care. Family physicians became "gatekeepers" of healthcare system. Population/patients could register with a desired physician. The infrastructure of primary care facilities was renewed. A new mechanism for health care resource allocation was established, so that primary care facilities could be organized in a better way to implement and develop national health policies, strategies and programs [15].

The primary healthcare reform brought considerable changes where family medicine was concerned. The responsibility concerning population registration, financial responsibility, constant legislation change and other additional tasks certainly had its influence in the greater level of stress and burnout syndrome occurrence among family physicians compared to physicians in other departments.

Family medicine is found to be partially implemented, mainly because of weak collective action of steakholders, different degrees of consolidation and lack of coordination between primary and secondary health care [16]. Special emphasis in family medicine is placed on the holistic approach concerning the disease prevention and health promotion. Unfortunately, our population is not educated enough for complicated enforcement and prevention [17]. A family physician is burdened with great number of chronic disease patients, as well as with social and other problems for which a patient is not able to find an effective solution. Patients often have unrealistic expecta-

tions where their family physician is concerned, which cause chronic stress. Furthermore, family physicians are also burdened with large-scale administration, lack of time for patient admission, as well as with patients' social problems. Freeman et al. [18] have shown the relation between implementation of the reform in primary health care and increased risk for burnout syndrome in health care professionals.

### Conclusion

The results of our study show high level of stress in all three components of the burnout syndrome among all interviewed physicians. There is statistically significant higher level of stress, emotional exhaustion and depersonalization in family physicians compared to physicians in other departments.

Funding source. The authors received no specific funding for this work.

Ethical approval. The Ethics Committee of the Primary Health Care Center in Banja Luka approved the study and informed consent was obtained from all individual respondents. The research was conducted according to the Declaration of Helsinki.

Conflicts of interest. The authors declare no conflict of interest

#### References

- Maslach C, Leiter MP. Early predictors of job burnout and engagement. J Appl Psychol 2008;93:498-512.
- Tremolada M, Schiavo S, Tison T, Sormano E, De Silvestro G, Marson P, et al. Stress, burnout, and job satisfaction in 470 health professionals in 98 apheresis units in Italy: A SidEm collaborative study. J Clin Apher 2015;30:297-304.
- Shanafelt TD, Boone S, Tan L, Dyrbye LN, Sotile W, Satele D, et al. Burnout and satisfaction with work-life balance among US physicians relative to the general US population. Arch Intern Med 2012;172:1377 -85.
- Silva SC, Nunes MA, Santana VR, Reis FP, Machado Neto J, Lima SO. Burnout syndrome in professionals of the primary healthcare network in Aracaju, Brazil. Cien Saude Colet 2015;20:3011-20.
- 5. Maslach C. Job burnout: New directions in research and intervention. Curr Dir Psychol Sci 2003;12:189-92.
- Brody DS. A phisician's guide to personal stress management. Compr Ther 2002;28: 160-4.
- 7. Maslach C, Jackson S. The measurement of experienced burnout. J Organ Behav 1981;2:99-113.
- Soler JK, Yaman H, Esteva M, Dobbs F, Asenova RS, Katic M, et al. European General Practice Research Network Burnout Study Group. Burnout in european family doctors: the EGPRN study. Fam Pract 2008;25:245-65.
- Bawakid K, Abdulrashid O, Mandoura N, Shah HBU, Ibrahim NM, et al. Burnout of physicians working in primary health care centers under Ministry of Health Jeddah, Saudi Arabia. Cureus 2017;25;9:e1877.

- 10. Stanetić K, Tešanović G. Influence of age and length of service on the level of stress and burnout syndrome.Med Pregl 2013;66:153-62.
- 11. Stanetić K, Savić S, Račić M. The prevalence of stress and burnout syndrome in hospital doctors and family physicians. Med Pregl 2016;69:356-65.
- 12. Pedersen AF, Andersen CM, Olesen F, Vedsted P. Stress and burnout increase among general practitioners in Denmark. Ugeskr Laeger 2014;20 (2):135-8.
- 13. Vandenbroeck S, Van Gerven E, De Witte H, Vanhaecht K, Godderis L. Burnout in Belgian physicians and nurses. Occup Me (Lond) 2017;167:546-54.
- 14. Rothenberger DA. Physician burnout and well-being: a systematic rewiev and framework for action. Dis Colon Rectum 2017;60:567-76.
- 15. Račić M. Family medicine in Republic of Srpska. Opšta medicina 2015;21:75-80.
- 16. Račić M, Pekez-Pavlisko T, Jokovic S. Barriers and facilitators for implementation of family medicine-oriented model of primary care in Bosnia and Herzegovina: A quantitative study. Int J Health Plann Manage 2018; 33(1):e378-e290.
- 17. Masic I, Hadziahmetovic M, Donev D, Pollhozani A, Ramadani N, Skopljak A, et al. Public health aspects of the family medicine concepts in South eastern Europe. Mater Sociomed 2014; 26(4):277-86.
- 18. Freeman T, Baum F, Labonte R, Javanparast S, Lawless A. Primary health care reform, dilemmatic space and risc of burnout among health workers. Health (London) 2018;22(3):277-97.

# Analiza nivoa stresa i sindroma sagorijevanja na poslu kod ljekara različitih specijalnosti u primarnoj zdravstvenoj zaštiti

Kosana Stanetić 1,2, Brankica Marković 1, Verica Petrović 1,2, Bojan Stanetić 2,3

<sup>1</sup>Dom zdravlja, Banja Luka, Republika Srpska, Bosna i Hercegovina

**Uvod**. Sindrom sagorijevanja na poslu je čest problem kod zdravstvenih radnika. Obolijevanju od ovog sindroma uglavnom prethodi hronični radni stres. Uzroci radnog stresa su brojni, a autori najčešće navode opterećenje velikim brojem pacijenata, nedostatak vremena da se svi pacijenti pregledaju i opterećenje administracijom. Cili rada je: ispitati nivo stresa, komponenti sindroma sagorijevanja na poslu i najčešćih uzroka radnog stresa kod ljekara u Domu zdravlja Banja Luka, te uporediti dobijene rezultate između ljekara u porodičnoj medicini i ljekara drugih specijalnosti.

Metode. Istraživanje je opservaciona studija, a sprovodena je metodom anketiranja ljekara u JZU Dom zdravlja Banja Luka, u periodu mart-maj 2018. godine. Istraživanje je anonimno. Svim zaposlenim ljekarima su ponuđeni anketni upitnici: sociodemografski upitnik, Upitnik za samoprocjenu nivoa stresa, anketa o najčešćim uzrocima stresa na poslu i Maslach Burnout Inventory (MBI).

Rezultati. Istraživanjem je obuhvaćeno 211, od ukupno 246 ljekara zaposlenih u Domu zdravlja u Banjoj Luci. U porodičnoj medicini je anketirano 127, a u ostalim službama 84 ispitanika. Ljekari u porodičnoj medicini su imali statistički značajno veći nivo stresa (p = 0.011), emocionalne isrpljenosti (p = 0.000) i depersonalizacije (p = 0,000) u odnosu na ljekare drugih specijalnosti. Porodični ljekari su imali statistički značajno više prisutne sve uzroke stresa, osim u zbrinjavanju pacijenata sa hitnim stanjima.

Zaključak. Nivo stresa i sindroma sagorijevanja na poslu je značajno više prisutan kod ljekara u porodičnoj medicini u odnosu na ljekare u drugim službama.

Ključne riječi: stres, sindrom sagorijevanja na poslu, uzroci radnog stresa, porodični ljekari, primarna zdravstvena zaštita

<sup>&</sup>lt;sup>2</sup>Univerzitet u Banjaluci, Medicinski fakultet, Banja Luka, Republika Srpska, Bosna i Hercegovina

<sup>&</sup>lt;sup>3</sup>Univerzitetski klinički centar, Banja Luka, Republika Srpska, Bosna i Hercegovina