

# Burnout Syndrome in Psychiatrists in Slovakia: A National Survey

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**Abstract** - No study that would deal with the prevalence of burnout syndrome in psychiatrists has been carried out in Slovakia to date, even though it is a high-risk profession. We have therefore investigated the symptoms of burnout in physicians within all Slovak psychiatric workplaces, in relation to individual differences. The participants filled in the Maslach Burnout Inventory and the Questionnaire for Identification of Stress Level and Burnout Syndrome. We aimed to detect their levels of emotional exhaustion, depersonalization, and personal accomplishment as well as physical, psychological, emotional, and social symptoms of work-related stress and burnout. The remaining items of our interest concerned the participants' age, length of practice, gender, provision of the institutional emergency care, and type of workplace. Over one third of Slovak psychiatrists expressed a low degree of personal accomplishment, one quarter reported a high level of depersonalization and nearly one half suffered a high level of emotional exhaustion. Not only the levels of emotional and physical symptoms, but also the overall level of burnout, were significantly higher in female psychiatrists. More experienced psychiatrists as well as those who do not provide the institutional emergency care expressed higher levels of personal accomplishment. To address the issues revealed both in our study and the previous research we recommend implementation of measures focused on the support of mental health of healthcare workers across the whole society. In addition, more attention is needed to the active use of preventive measures at all psychiatric workplaces by both the employers and the psychiatrists themselves.

**Key words:** physicians; psychiatrists; burnout syndrome; individual differences; Slovakia

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## Introduction

The professional life of doctors is emotionally demanding. Their work performance along with their personal and job satisfaction are to a great extent determined by the conditions within the working environment and

their attitude towards carrying out their profession. If they are exposed to various negative impulses over a long period of time, they are at risk of developing burnout syndrome. The burnout syndrome is most frequently defined as the experience of physical, emotional, and mental exhaustion as the result of long-term exposure to emotionally challenging situations and chronic interpersonal stressors [1-2]. The development of burnout syndrome is preceded by several phases, starting with the

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initial enthusiasm, followed by stagnation as a result of the discrepancy between the ambitions and expectations of the doctors and the real work conditions. The situation usually gets worse, and the frustration phase begins, when the doctors experience an increased level of stress, and frequently question the meaningfulness of their work. Gradually they move to the apathy phase, carrying out only necessary work activities, using dehumanization as a way of protection. If they do not seek help even at this late point, the burnout phase develops, which is manifested in the physical, psychological, and social areas [3-4].

Psychological exhaustion is characterised by changes in emotions and mental functions; the experience of negative emotions, changes of mood, a decrease in the level of attention, and a worsening memory are the most common. Within social relationships an attenuation of sociability and limitation of contact are typical. Physical symptoms include chronic tiredness, exhaustion, as well as a greater susceptibility to diseases and to self-treatment through medication and alcohol [5]. Alongside the traditional division of burnout symptoms into emotional exhaustion, depersonalization (or cynicism) and the absence of personal accomplishment, other concepts are known [6-7]. Examples include burnout as a combination of affective, cognitive, and physical exhaustion, and disengagement from work, along with mental tiredness and physical exhaustion, where depersonalization is a coping strategy and personal dissatisfaction is the result of burnout [8,9]. Research has repeatedly shown that emotional exhaustion, as a symptom of burnout, is strongly linked with depression [10,11].

Burnout syndrome most frequently affects care professions characterised by a high level of responsibility and intensive involvement in work in combination with insufficient recognition, where “the take outweighs the give”. Doctors, nurses, and other healthcare workers

represent the group with the highest risk of burnout among the care professions [12-14]. Thus, burnout is the disease of modern health-care [15]. Montgomery claims that burnout in doctors is the inevitable consequence of the current situation in the education and professional practice of doctors [16]. In his opinion, the first factor that contributes to the origin of burnout in doctors is as early as the period of undergraduate preparation, because the studies of future doctors rather focus on the acquisition of knowledge and practical skills as opposed to training in communication skills and the adoption of strategies to cope with demanding situations. In his opinion, limited attention is paid within medical education to the development of social and interpersonal skills.

There is a lot of risky elements in the physician's practice, among them a high level of moral and legal responsibility, having to face the negative emotions coming from patients, along with the need to make decisions despite having incomplete information, the conflict between roles (therapist vs. manager), and easy access to addictive substances [13,17]. Important factors which increase the danger of burnout in doctors are shift work and emergency shifts [18,19]. The risk of developing the burnout syndrome also grows as a result of increasing economic and administrative limitations and constant changes in the health-care system [20]. Direct contact with patients and the impact of various stressors, which, as a rule, cannot be eliminated, contribute to the prevalence of burnout in healthcare workers. Burnout negatively affects the quality of the healthcare provided and leads to reduced levels of concentration, poor time management, decrease in productivity, less effective cooperation, problems with understanding new procedures, irritability, aggression, and more frequent mistakes [21-23]. The consequences not only affect the institution that employs the doctor, but also the patients, supporting

persons, possibly students, and also the private life of the doctor. The way that individual doctors cope with stress and a heavy workload depends on the personality of the doctor, their experience, abilities, and attitude [24-25].

Psychiatrists represent a specific group among healthcare professions and the prevalence of the burnout syndrome in them is significantly high [2,14,26-28]. The reasons are, *inter alia*, few opportunities to consult with others, insufficient supervision, intensive interpersonal contact with patients and relatives, dealing with urgent cases and others [29-32]. Empirical studies have shown that psychiatrists reach a higher level of depersonalization and emotional exhaustion and also suffer from a higher prevalence of sleep issues and suicidal thoughts than general practitioners [31]. On the other hand, psychiatrists are more knowledgeable about mental health and its prevention, and they are better informed of how to cope with tense and stressful situations which may help them avoid burnout [12]. To date, research that would deal with the individual differences in the prevalence of burnout in doctors and especially psychiatrists has mostly provided ambiguous findings. For instance, whereas some studies have identified a higher level of symptoms of burnout in women, other works have shown no differences, or reached contradictory results [18,25-26,30-33]. For a summary of findings concerning gender, age, and length of practice we recommend our previous studies [34-35]. Several authors consider shift work and emergency shifts to be among the crucial factors that condition the development of burnout in physicians [18-19].

Healthcare for patients with mental disorders is provided as part of out-patient and in-patient care in Slovakia. By making a comparison between these aspects at individual psychiatric workplaces, that is departments of psychiatry, psychiatric wards, and out-patient departments, we have reached the conclusion that doctors working at departments of

psychiatry experience a higher workload and there are more significant stress factors in their work. These are not only imposed through the provision of healthcare to more difficult cases but also through the performance of educational activities. Factors related to the preparation of undergraduate medical students and the postgraduate education of psychiatrists are not present, to any great extent, at other psychiatric workplaces (psychiatric wards and out-patient departments). Moreover, it is mostly at departments of psychiatry that scientific and research work is carried out. It may likewise be part of the workload of psychiatrists in psychiatric wards and out-patient departments, although to a lesser extent. The common factor within departments of psychiatry, psychiatric wards and out-patient departments is the participation of doctors in lifelong learning, which forms an important part of their professional growth and is perceived as a protective factor with regard to the prevention of the burnout syndrome.

No extensive study has been carried out in Slovakia which would establish the prevalence of burnout syndrome in psychiatrists as one of the medical professions. Therefore, our aim was to discover to what extent this negative phenomenon occurs in psychiatrists within the individual departments of psychiatry, at psychiatric wards and in out-patient departments. In addition to the general patterns, we were interested in the individual differences with respect to age, length of practice, gender, and the provision of the institutional emergency care. As the findings of previous analogous foreign studies were mostly ambiguous, we formulated several research questions and one hypothesis: (Q1) What is the prevalence of the individual categories of the burnout symptoms in doctors in psychiatric workplaces in Slovakia?

Do the doctors at psychiatric workplaces in Slovakia exhibit any differences in the prevalence of burnout symptoms from the view-

point of (Q2) gender, (Q3) age, (Q4) length of practice and (Q5) type of workplace? (H1). There is a higher prevalence of burnout symptoms in doctors at psychiatric workplaces in Slovakia who provide institutional emergency care compared to those who do not [18-19].

## Subjects and Methods

### Sample

The sample consisted of 182 doctors, out of which 76 % (n = 139) were women and 24 % (n = 43) were men. Their age ranged from 25 to 83 years (Mdn = 45, IQR = 21) and their length of practice from 3 months to 49 years (Mdn = 19, IQR = 20). About half of the participants claimed to provide the institutional emergency care (52.2 %, n = 95). Less than one third of the psychiatrist work in the out-patient departments (32.4 %, n = 59), over one fifth work in the psychiatric wards (21.4 %, n = 39), 45.1 % in the departments of psychiatry (n = 82), and the rest in the daily psychiatric stationaries (n = 2). The data was collected both anonymously and voluntarily in two phases: first, within departments of psychiatry, and later in psychiatric wards, out-patient departments, and daily psychiatric stationaries. The return rate of questionnaires was 38.3 %. In addition to various sociodemographic items, the participants filled in two questionnaires that measured the degree of the burnout symptoms.

### Measures

The first questionnaire was the 22-item Maslach Burnout Inventory (MBI) [6]. The nine items are intended to determine the level of emotional exhaustion (EE, 26+ high, 16+ moderate, otherwise low,  $\alpha = 0.93$ ). The next five items focus on the degree of depersonalization (DP, 12+ high, 6+ moderate, otherwise low,  $\alpha = 0.82$ ). Finally, the remaining eight items aim to establish the level of personal accomplishment (PA, 38+ high, 31+ moderate, otherwise low,  $\alpha = 0.84$ ). The answers are provided using an 8-point Likert-type scale, with the endpoints ranging from “not at

all” to “very much”. The translation of the published questionnaire from 1981 has been used in research in Slovakia, more recently its adapted versions [36]. The validation of the MBI questionnaire with 389 healthcare workers within the age range of 18 – 64 years confirmed it can be applied to our conditions [37].

The Questionnaire for Identification of Stress Level and Burnout Syndrome (QISLBS) consists of four dimensions, each represented by six items [36]. They consider physical (PhS,  $\alpha = 0.76$ ), psychological (PsS,  $\alpha = 0.74$ ), emotional (ES,  $\alpha = 0.87$ ) and social (SS,  $\alpha = 0.82$ ) symptoms. The participants respond through a 5-point Likert-type scale, with the endpoints ranging from “never” to “always”. The number of points ascribed to the items in the individual areas form the domain scores and the sum of them is the overall score that points to the degree of stress and susceptibility to burnout syndrome (Min = 0, Max = 96). A mild level of stress is defined by the score between 25 and 48, a moderate level of stress is linked to the range 49 to 72, and the score above 72 signifies a severe level of stress. At the same time, the score above 49 points indicates an increased risk of burnout, while the score above 73 points stands for a critical state of burnout. The questionnaire is valid and reliable [38-39].

## Results

### The Burnout Symptoms

The results of the evaluation of the three sub-scales of the MBI are provided in Table 1. Over one third of the psychiatrists expressed a low rate of personal accomplishment, one quarter claimed to experience a high level of depersonalization, and nearly one half had symptoms of a high level of emotional exhaustion. We found at least one critical value in 63.7 % (n = 116) of participants: high emotional exhaustion, high rate of depersonalization and/or low personal accomplishment. One eighth of the psychiatrists (12.6 %, n = 23) exhibited all three groups of critical symp-

**Table 1.** Levels of the individual dimensions of burnout according to the Maslach Burnout Inventory (MBI) questionnaire results

Subscales	Low	Moderate	High
	% (n)	% (n)	% (n)
Emotional exhaustion	32.4 (59)	22.0 (40)	45.6 (83)
Depersonalization	49.5 (90)	24.7 (45)	25.8 (47)
Personal accomplishment	36.3 (66)	31.3 (57)	32.4 (59)

toms simultaneously. On the contrary, one seventh (14.3 %, n = 26) of the group were found to be at the other end of the scale, reporting a high level of personal accomplishment and low levels of depersonalization and emotional exhaustion.

As for the other questionnaire, the QISLBS, 33 % (n = 60) of the participants reported a low stress level, 57 % (n = 103) indicated mild stress, 10 % (n = 18) fell in the category of a moderate stress and an increased risk of burnout, and in the case of the remaining one participant, we identified a severe stress level and a critical state of burnout. From a possible score of 0 to 24, the reported values ranged from 0 to 20 in the physical domain (M

= 8.7, SD = 4.1), from 1 to 22 in the psychological domain (Mdn = 7, IQR = 5.25), from 0 to 24 in the emotional domain (M = 8.9, SD = 4.4) and from 0 to 22 in the social domain (Mdn = 6, IQR = 6). The overall score was in the range between 2 and 83 (M = 31.5, SD = 14.0). The most common symptoms of burnout identified with the QISLBS evaluation were: a feeling of being physically “drained” and experiencing tension (PhS), having difficulty concentrating and doubting one’s own professional abilities (PsS), the experience of internal distress and an inability to enjoy one’s work (ES), and finally an unwillingness to help problematic patients, and the avoidance of participation in further education (SS).

**Table 2.** Relationships between the individual markers of burnout syndrome

	EE	DP	PA	PhS	PsS	ES
DP	0.60					
PA	-0.39	-0.37				
PhS	0.71	0.42	-0.45			
PsS	0.63	0.52	-0.52	0.61		
ES	0.76	0.48	-0.51	0.76	0.77	
SS	0.64	0.66	-0.49	0.58	0.76	0.70

Note. EE = emotional exhaustion, DP = depersonalization, PA = personal accomplishment, PhS = physical symptoms, PsS = psychological symptoms, ES = emotional symptoms, SS = social symptoms

**Table 3.** Differences in the level of symptoms of the burnout syndrome by gender

	TR	ER	QISLBS – sum
	Mdn (IQR)	M (SD)	M (SD)
Men	7 (5)	7.4 (3.6)	27.4 (12.4)
Women	9 (6)	9.4 (4.5)	32.7 (14.3)
Test result	M-W U = 2,325.5 p = 0.032 r = 0.16	t(178) = -2.71 p = 0.007 d = 0.51	t(174) = -2.17 p = 0.031 d = 0.40

Note: PhS = physical symptoms, ES = emotional symptoms, QISLBS = Questionnaire for Identification of Stress Level and Burnout Syndrome

As depicted in Table 2, the levels of the seven indicators of the burnout syndrome are mutually linked, exhibiting moderate to strong relationships (all  $p < 0.001$ ).

### Individual Differences

In the rest of the analyses, we focused on the occurrence of burnout symptoms in relation to age, length of practice, gender, the provision of institutional emergency care, and type of workplace. Age and the length of practice correlated positively with the rate of personal accomplishment,  $r = 0.24$ ,  $p = 0.001$ . However, neither age nor length of practice correlated with other burnout symptoms, which was also supported by a comparison of the group of younger and older psychiatrists (under/over 45 years) and with shorter and longer length of practice in psychiatry (under/over 20 years).

Three significant differences were found between male and female psychiatrists. As can be seen in Table 3, the overall level of burnout symptoms identified with the QISLBS as well as the rate of emotional and physical symptoms were significantly higher in women than men. The greatest differences were seen in the higher rate of the experience of fear ( $r = 0.26$ ), headaches ( $r = 0.21$ ) and feelings of dejection ( $r = 0.20$ ) within the group of fe-

male psychiatrists. In our group, women had a higher proportion compared to men (139 vs 43), which approximately corresponds to the gender structure of members of the Slovak Psychiatric Society. Therefore, despite the gender imbalance, we consider the findings of our research to be relevant.

As for the institutional emergency care, we found one significant difference: those participants who do not carry out the institutional emergency care (Mdn = 38, IQR = 12) expressed a substantially higher level of personal accomplishment than those who do (Mdn = 33, IQR = 9), M-W U = 3,070,  $p = 0.003$ ,  $r = 0.22$ ). In particular, the psychiatrists who do not provide the institutional emergency care had a stronger belief related to their positive influence on people ( $r = 0.24$ ) and their abilities to both deal calmly with problems at work ( $r = 0.19$ ) and understand their clients' feelings ( $r = 0.17$ ), when compared to psychiatrists who provide the institutional emergency care.

When comparing participants who carry out their practice in psychiatric out-patient departments (O), in psychiatric wards (W) and at departments of psychiatry (D), a single important difference was found. The level of personal accomplishment was highest in psychiatrists who carry out their practise in out-patient departments (Mdn = 40, IQR = 11),

followed by wards (Mdn = 35, IQR = 9) and then departments of psychiatry (Mdn = 31, IQR = 11),  $H(2) = 26.18$ ,  $p < 0.001$ ,  $\eta^2 = 0.15$ ; O-W: M-W  $U = 809.5$ ,  $p = 0.013$ ,  $r = 0.25$ ; O-C: M-W  $U = 1,229.5$ ,  $p < 0.001$ ,  $r = 0.42$ ; W-C: M-W  $U = 1,190$ ,  $p = 0.023$ ;  $r = 0.21$ . This trend (psychiatric out-patients–wards–departments of psychiatry) was also seen in all the items. The most significant differences concerned the belief of one’s positive influence on people ( $\eta^2 = 0.14$ ), about one’s abilities to deal calmly with problems at work ( $\eta^2 = 0.11$ ) and to create a relaxed atmosphere with clients ( $\eta^2 = 0.08$ ).

## Discussion

Studying the burnout syndrome in the healthcare context is highly socially relevant because doctors with a higher level of burnout have double the normal risk of committing an error in their job over the course of the next three months [40]. Burnout in psychiatrists leads to changes in their communication style, to evasive behaviour, apathy, emotional instability, irritability, and other manifestations that have a negative impact on their practice and patients [21-23,41]. Nevertheless, this topic has not yet been sufficiently researched and there are still no verified solutions with regard to primary and secondary prevention. The studies carried out so far in Slovakia have focused on the observation of burnout syndrome in healthcare workers, including not only physicians but also nurses, laboratory workers, orderlies, and hospital attendants [42]. Studies concerning the profession of physicians had a partial focus, such as the study of work stress in doctors in relation to their subjective career success [39].

Conducting our research with doctors at individual psychiatric workplaces, we discovered that the most common symptoms reported by the psychiatrists were the feeling of being physically “drained” and experiencing physi-

cal tension, difficulties with concentration and doubts about their professional abilities, the experience of internal distress and the inability to enjoy one’s work, and ultimately an unwillingness to help problematic patients and to avoid participation in further education. Overall, more than one half of the participants reported to experience a mild level of stress and every tenth psychiatrist fell in the category of a moderate level of stress. Furthermore, over one third of psychiatrists expressed a low level of personal accomplishment, one quarter reported a high level of depersonalization, and nearly half indicated symptoms of a high level of emotional exhaustion. Similar findings with respect to emotional exhaustion were confirmed within the study with Thai psychiatrists [43]. In our sample, at least one critical value (high emotional exhaustion, high depersonalization, low personal accomplishment) was found in nearly two thirds of the participants. At the same time, every eighth psychiatrist showed all three critical symptoms at once. Our findings are similar to the conclusions of the study with Indian psychiatrists, in which burnout was confirmed in one third (32 %) of the psychiatrists [44]. A higher prevalence of the burnout syndrome has also been supported by a research which focused on its presence in junior doctors under their training at psychiatric workplaces, where emotional exhaustion was found in nearly one half of the sample and depersonalization in just under two thirds [45]. A higher level of depersonalization and emotional exhaustion in psychiatrists compared to general practitioners was also found in the study conducted within a large Health Maintenance Organization [46]. An increased rate of the prevalence of the burnout syndrome in psychiatrists was also demonstrated in other studies, e.g. [2,11,14,26-28]. Similarly, the meta-analysis carried out by Rotstein and associates in 2019 supported the existence of a higher level of emotional exhaustion and depersonalization in psychiatrists as well as a

decreased level of their personal accomplishment [47].

As for the levels of burnout symptoms in relation to the individual differences, we discovered that with increasing age and length of practice, psychiatrists displayed a higher level of personal accomplishment. Yet, we failed to find any other significant age- or length-of-practice-related patterns. Similar findings linked to the length of practice were found by the authors of the study with Canadian psychiatrists [48]. Next, three important gender differences were found. The overall level of burnout symptoms, as well as the level of emotional and physical symptoms, were substantially higher in women than men. The greatest differences were found in the higher level of experiencing fear, headaches, and feelings of dejection by female psychiatrists. These patterns contradict the findings of a higher rate of burnout symptoms in male than female doctors or the absence of gender differences in burnout among psychiatrists but are in line with the findings of a higher prevalence of burnout in women in the healthcare professions [11,15,18,30,31,40,42,49]. One possible explanation is that female psychiatrists struggle to combine work and household duties [5]. Moreover, the psychiatrists who do not provide institutional emergency care expressed a higher level of personal accomplishment than those who do: they felt a stronger belief in the positive influence they have on people, in their abilities to deal with problems at work and to understand the feelings of clients in comparison to psychiatrists who provide institutional emergency care. These conclusions supported our assumption as well as previous claims on shift work and emergency shifts being important factors that increase the risk of burnout in doctors [18-19]. This can be explained by the intensive, emotionally challenging, interpersonal contact with patients, and the need to deal with exceptionally difficult and urgent cases which often leads to creation of a personal

distance from patients [30,32]. Finally, looking at differences based on the type of workplace, we found a single significant one: the level of personal accomplishment was the highest in doctors who work in out-patient departments, followed by those in wards and then in departments of psychiatry. The greatest differences concerned the belief held by psychiatrists about their positive influence on people, about their abilities to solve problems at work and to create a relaxed atmosphere with their clients. An explanation for these findings may be the greater workload in the group of psychiatrists at departments of psychiatry, who, in addition to providing healthcare in departments of psychiatry and out-patient departments, contribute to the undergraduate and postgraduate education of students and physicians, and are expected to participate in scientific research.

Based on the findings discovered, it is important to dedicate increased attention to the active use of preventive measures in the individual clinical workplaces, the promotion of activities that support the mental health of all healthcare workers across the whole society, as well as the establishment of suitable work conditions. It is likewise necessary to dedicate attention to the early identification of the burnout syndrome through Balint supervision groups [5]. To prevent burnout within doctors at psychiatric workplaces it is crucial that both the psychiatrists and the employers make use of protective factors. These include a support network established by the employer, for example through the building of a community and good interpersonal relationships, support for education, the provision of academic activities, looking for new challenges to make changes, and others. Attention should also be paid to the development of coping strategies, extracurricular interests, time to relax, sufficiently long holidays, and others [2,41,50]. In the long term, the most suitable strategy to minimise chronic stress may be an intensive programme that is realised through the support

meetings [14,50]. From among the individual intervention programmes to prevent burnout in the years 1995-2007 the authors have discovered that combined programmes focused on both changes in the individual and the organization, tend to have a long-lasting effect [51].

To conclude, our study brings some original findings about the prevalence of the burnout syndrome and the respective individual differences on a homogeneous group of doctors working at all of the psychiatric workplaces in Slovakia. However, our study is not without limitations. Despite our effort to reach the highest possible return rate of the questionnaires, we ended with less than 40 %. This may have been caused by a lack of interest in psychiatrists or their unwillingness to participate in the research, perhaps as a consequence of oversaturation by similar requests and increased demands concerning administrative activities in general. The return rate then gives rise to a limited possibility to draw generalised findings as it is uncertain to what extent the group of the participants is representative with respect to the total population of psychiatrists. For instance, it may be that the doctors

who suffer the most severe occurrence of the burnout symptoms did not participate in the study, as their condition may have caused resignation, apathy and unwillingness to participate. Another limitation may be the distortion of answers through social desirability, despite a guarantee of anonymity. Last but not least, the study was solely focused on examining the prevalence of the burnout syndrome in relation to selected individual differences without taking into account other important variables such as cognitive and personality characteristics, attitudes or any other aspects which may be related to the incidence of the burnout syndrome.

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### Conflict of interest

None to declare.

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### References

1. De Silva PV, Hewage CG, Fonseka P. Burnout: an emerging occupational health problem. *Galle Med J*. 2009;14:52-5.
2. Maslach C, Leiter MP. Understanding the burnout experience: recent research and its implications for psychiatry. *World Psychiatry*. 2016;15:103-11.
3. Kebza V, Šolcová I. Syndrom vyhoření. 2. vydání. Praha: Státní zdravotní ústav; 2003. p. 23.
4. Haškovcová H. Thanatologie. Nauka o umírání a smrti. 1. vydání. Praha: Galén; 2007. p. 244.
5. Morovicsová E, Izáková E, Kořínková V, Králová M, Krajčovičová D, Obuch, I, et al. Komunikácia v medicíne. 2. vydanie. Bratislava: Univerzita Komenského; 2014. p. 212.
6. Maslach C, Jackson SE, Leiter MP. *Maslach Burnout Inventory*, 3rd ed. Palo Alto, CA: Consulting Psychologists Press; 1996. p. 191-218.
7. Marine A, Ruotsalainen J, Serra C, Verbeek J. Preventing occupational stress in healthcare workers. *Cochrane Database Syst Rev*. 2006;18:CD002892.
8. Demerouti E, Bakker AB, Vardakou I, Kantas A. The convergent validity of two burnout instruments: A multitrait-multimethod analysis. *Eur J Psychol Assess*. 2003;19:12-23.
9. Kristensen TS, Borritz M, Villadsen E, Christensen KB. The Copenhagen Burnout Inventory: A new tool for the assessment of burnout. *Work & Stress*. 2005;19:192-207.
10. Maslach C, Schaufeli WB. Historical and conceptual development of burnout. In: Schaufeli WB, Maslach C,

- Marek T, editors. Series in applied psychology: Social issues and questions. Professional burnout: Recent developments in theory and research. Philadelphia (USA): Taylor & Francis Group; 1993. p. 1-16.
11. Summers RF, Gorrindo T, Hwang S, Aggarwal R, Guille C. Well-Being, Burnout, and Depression Among North American Psychiatrists: The State of Our Profession. *Am J Psychiatry*. 2020;177:955-64.
  12. Hosák L, Hosáková J, Čermáková E. Syndrom profesionálního vyhoření zdravotnických pracovníků. *Psychiatr Pro Praxi*. 2005;6:205-6.
  13. Nešpor K. Prevence profesionálního stresu a syndromu vyhoření. *Med Pro Praxi*. 2007;4:371-3.
  14. Kumar S. Burnout and psychiatrists: what do we know and where to from here? *Epidemiol Psychiatr Sci*. 2011;20:295-301.
  15. Ptáček R, Raboch J. Diagnóza českého zdravotnictví - Z73.0? Stres a vyhoření lékařů českých. *Tempus Medicorum*. 2013;22:3-9.
  16. Montgomery A. The inevitability of physician burnout: Implications for interventions. *Burn Res*. 2014;1:50-6.
  17. Žucha I, Čaplová T, Fleischer J, Králová M, Novotný V, Pečeňák J, et al. *Lekárska psychológia*. 2. vydanie. Bratislava: Univerzita Komenského; 2012. p. 205.
  18. Ozyurt A, Hayran O, Sur H. Predictors of burnout and job satisfaction among Turkish physicians. *QJM*. 2006;99:161-9.
  19. Goldberg R, Boss RW, Chan L, Goldberg J, Mallon WK, Moradzadeh D, et al. Burnout and its correlates in emergency physicians: four years' experience with a wellness booth. *Acad Emerg Med*. 1996;3:1156-64.
  20. Arigoni F, Bovier PA, Mermillod B, Waltz P, Sappino AP. Prevalence of burnout among Swiss cancer clinicians, paediatricians and general practitioners: who are most at risk? *Support Care Cancer*. 2009;17:75-81.
  21. McTiernan K, McDonald N. Occupational stressors, burnout and coping strategies between hospital and community psychiatric nurses in a Dublin region. *J Psychiatr Ment Health Nurs*. 2015;22:208-18.
  22. Barnett RC, Brennan RT, Gareis KC. A closer look at the measurement of burnout. *J Applied Biobehav Res*. 1999;4:65-78.
  23. Wood BD, Killion JB. Burnout among healthcare professionals. *Radiol Manage*. 2007;29:30-4.
  24. Morovicsová E. Syndróm vyhorenia a možnosti jeho prevencie. *Psychiatr Prax*. 2016;17:153-6.
  25. O'Connor K, Muller Neff D, Pitman S. Burnout in mental health professionals: A systematic review and meta-analysis of prevalence and determinants. *Eur Psychiatry*. 2018;53:74-99.
  26. Fothergill A, Edwards D, Burnard P. Stress, burnout, coping and stress management in psychiatrists: findings from a systematic review. *Int J Soc Psychiatry*. 2004;50:54-65.
  27. Bressi C, Porcellana M, Gambini O, Madia L, Muffatti R, Peirone A, et al. Burnout among psychiatrists in Milan: a multicenter survey. *Psychiatr Serv*. 2009;60:985-8.
  28. Honzák R. Burnout u personálu psychiatrické léčebny Horní Beřkovice. *Psychosom*. 2009;16:134-42.
  29. Jovanović N, Podlesek A, Volpe U, Barrett E, Ferrari S, Kuzman MR, et al. Burnout syndrome among psychiatric trainees in 22 countries: Risk increased by long working hours, lack of supervision, and psychiatry not being first career choice. *Eur Psychiatry*. 2016;32:34-41.
  30. Guthrie E, Tattan T, Williams E, Black D, Bacliocotti H. Sources of stress, psychological distress and burnout in psychiatrists. *Psychiatr Bull*. 1999;23:207-12.
  31. Korkeila JA, Töyry S, Kumpulainen K, Toivola JM, Räsänen K, Kalimo R. Burnout and self-perceived health among Finnish psychiatrists and child psychiatrists: a national survey. *Scand J Public Health*. 2003;31:85-91.
  32. Kumar S. Burnout in psychiatrists. *World Psychiatry*. 2007;6:186-9.
  33. Langelan S, Bakker AB, van Doornen LJP, Schaufeli WB. Burnout and work engagement: Do individual differences make a difference? *Pers Individ Diff*. 2006;40:521-32.
  34. Morovicsová E, Krajčovičová D, Valuš L. Výskyt syndrómu vyhorenia u lekárov na psychiatrických klinikách na Slovensku. *Čes A Slov Psychiatr*. 2017;113:203-10.
  35. Morovicsová E, Kostovičová L. Výskyt syndrómu vyhorenia u lekárov na psychiatrických oddeleniach a v ambulanciách na Slovensku. *Čes A Slov Psychiatr*. 2018;114:237-43.
  36. Hennig C, Keller G. Antistresový program pro učitele: projevy, příčiny a způsoby překonání stresu z povolání. 1. vydání. Praha: Portál; 1996.
  37. Nôtová P, Páleníková V. Syndróm vyhorenia – analýza pilotnej štúdie u zdravotníckych pracovníkov. *Psychiatria*. 2003;10:221-3.
  38. Tošner J, Tošnerová T. Burn – Out syndrom. Syndrom vyhoření. 1. vydání. Praha: Hestia; 2002. p. 16.
  39. Haleková G, Žilková I. Subjektívny kariérny úspech lekárov v súvislosti s pracovným stresom a inými determinantmi. *E-psychologie*. 2016;10:34-45.
  40. Ashkar K, Romani M, Musharrafieh U, Chaaya M. Prevalence of burnout syndrome among medical residents: experience of a developing country. *Postgrad Med J*. 2010;86:266-71.

41. Fischer J, Kumar S, Hatcher S. What makes psychiatry such a stressful profession? A qualitative study. *Austral Psychiatry*. 2007;15:417-21.
42. Mažgútová A. Verejno-zdravotnícky význam psychických porúch pri profesionálnej záťaži [dissertation]. Martin: Univerzita Komenského; 2011. p. 155.
43. Nimmawitt N, Wannarit K, Pariwatcharakul P. Thai psychiatrists and burnout: A national survey. *PLoS One*. 2020;15:e0230204.
44. Sarma PG. Burnout in Indian Psychiatrists. *Indian J Psychol Med*. 2018;40:156-60.
45. Carneiro Monteiro GM, Passos IC, Baeza FLC, Hauck S. Burnout in psychiatry residents: the role of relations with peers, preceptors, and the institution. *Braz J Psychiatry*. 2020;42:226-7.
46. Snibbe JR, Radcliffe T, Weisberger C, Richards M, Kelly J. Burnout among primary care physicians and mental health professionals in a managed health care setting. *Psychol Rep*. 1989;65:775-80.
47. Rotstein S, Hudaib AR, Facey A, Kulkarni J. Psychiatrist burnout: a meta-analysis of Maslach Burnout Inventory means. *Australas Psychiatry*. 2019;27:249-54.
48. Kealy D, Halli P, Ogrodniczuk JS, Hadjipavlou G. Burnout among Canadian Psychiatry Residents: A National Survey. *Can J Psychiatry*. 2016;61:732-36.
49. McMurray JE, Linzer M, Konrad TR, Douglas J, Shugerman R, Nelson K. The work lives of women physicians results from the physician work life study. The SGIM Career Satisfaction Study Group. *J Gen Intern Med*. 2000;15:372-80.
50. Peisah C, Latif E, Wilhelm K, Williams B. Secrets to psychological success: why older doctors might have lower psychological distress and burnout than younger doctors. *Aging Ment Health*. 2009;13:300-7.
51. Awa WL, Plaumann M, Walter U. Burnout prevention: a review of intervention programs. *Patient Educ Couns*. 2010;78:184-90.

