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Бібліографічний опис статті: Ботякова В. Сучасний стан розповсюдженості синдрому професійного вигорання у медичних працівників Європи. *Сучасна медицина, фармація та психологічне здоров'я*. 2023. Вип. 1 (10), С. 18–25. DOI: <https://doi.org/10.32689/2663-0672-2023-1-2>

CURRENT STATE OF BURNOUT SYNDROME FREQUENCY IN EUROPEAN MEDICAL PROFESSIONALS

Abstract. Formulation of the problem. The article is devoted to study the issues related to current state of burnout syndrome frequency in European medical professionals which are important not only for domestic and foreign psychology, but also for clinical medicine in particular, due to its increased social significance and worldwide prevalence, while therefore there is a need for more detailed research. **Analysis of recent research and publications.** Burnout syndrome among medical professionals is common and usually may associate with negative consequences that can lead to poor patient's care. According to the World Health Organization (ICD-11: Burnout QD85), burnout syndrome is understood as an occupational phenomenon that contains 3 components: emotional exhaustion/EE, depersonalization/DP, and also reduced personal accomplishment/PA. **Formulation of the aim of an article.** Article aimed to determine the current state of burnout syndrome frequency in European medical professionals. **Presenting main material.** The article includes the scientific studies of researchers who explored burnout syndrome among medical professionals (including family doctors) by using the Maslach Burnout Inventory/MBI and Copenhagen Burnout Inventory/CBI. **Conclusions and prospects for additional research.** Based on our study, we consider it necessary to conclude the following: the majority of research on the investigation of burnout syndrome frequency in European medical professionals have been carried out in Poland, the Czech Republic, Hungary, the United Kingdom, Lithuania, the Federation of Bosnia and Herzegovina, Croatia, Italy, Serbia, Portugal, Spain, Slovenia, Germany and France, etc. The research conducted to determine the current state of burnout syndrome frequency in European medical professionals showed the presence of burnout syndrome in medical professionals ranging from 3,7% to 77%. According to the above analysis of the data, increased risk of burnout syndrome has such medical professionals as: oncologists, resident physicians, primary care healthcare workers, general practitioners, intensive care physicians, anesthetists, and psychotherapists. Additional scientific research is required to investigate the problem of burnout syndrome frequency worldwide, in particular, to develop global preventive programs for medical professionals that are effective.

Key words: burnout syndrome, Europe, physician, medical professional.

СУЧАСНИЙ СТАН РОЗПОВСЮДЖЕНОСТІ СИНДРОМУ ПРОФЕСІЙНОГО ВИГОРАННЯ У МЕДИЧНИХ ПРАЦІВНИКІВ ЄВРОПИ

Анотація. Постановка проблеми. Стаття присвячена дослідженню сучасного стану розповсюдженості синдрому професійного вигорання (далі – СПВ) у медичних працівників Європи, що має істотне значення не лише для вітчизняної та зарубіжної психології, але й для клінічної медицини зокрема, адже обумовлена її високою соціальною значимістю і значною поширеністю, а відповідно тому наявна потреба у більш детальному дослідженні означеної проблеми. **Аналіз останніх досліджень та публікацій.** СПВ у медичних працівників є достатньо поширеним явищем і зазвичай може мати негативні наслідки в результаті неналежного надання медичної допомоги хворим. Відповідно до ВООЗ (МКХ-11: Burnout QD85), синдром професійного вигорання варто розуміти як професійний феномен, що містить 3 компоненти: емоційне виснаження/ЕЕ, деперсоналізацію/ДР, та редукцію особистісних досягнень/РА. **Формулювання мети статті.** Метою статті є дослідження сучасного стану розповсюдженості синдрому професійного вигорання у медичних працівників Європи. Стаття містить наукові публікації авторів, які досліджували СПВ у медичних працівників (зокрема й лікарів загальної практики – сімейної медицини) за допомогою МБІ й СБІ. **Висновки та перспективи подальших досліджень.** На підставі нашого дослідження, вважаємо за потрібне зробити наступні висновки: більшість наукових публікацій щодо дослідження розповсюдженості СПВ у медичних працівників Європи були проведені у Польщі, Чехії, Угорщині, Великій Британії, Литві, Боснії та Герцеговині, Хорватії, Італії, Сербії, Португалії, Іспанії, Словенії, Німеччині та Франції тощо. Дослідження проведене для визначення сучасного стану розповсюдженості синдрому професійного ви-

горання у медичних працівників Європи виявило наявність СПВ в межах від 3,7% до 77%. Відповідно до проведеного аналізу, підвищений ризик формування СПВ мають лікарі-онкологи, лікарі-ординатори, медичні працівники, які надають первинну медичну допомогу, лікарів загальної практики – сімейної медицини, лікарі-анестезіологи та лікарі-психотерапевти. Наявна потреба у проведенні додаткових досліджень щодо з'ясування розповсюдженості СПВ у світі, а також у розробці ефективних міжнародних профілактичних програм СПВ для медичних працівників.

Ключові слова: синдром професійного вигорання, Європа, лікар, медичний працівник.

Formulation of the problem. Issues related to current state of burnout syndrome frequency in European medical professionals are important not only for domestic and foreign psychology, but also for clinical medicine in particular, due to its increased social significance and worldwide prevalence, and therefore there is a need for more detailed research.

Analysis of recent research and publications. Burnout syndrome among physicians, nurses and medical staff is common and usually associated with negative consequences that influence patient's care [1, p 2138]. It should be mentioned that according to part 1 of Article 78 of the Law of Ukraine «Fundamentals of the Legislation of Ukraine on Healthcare» medical professionals should provide timely and qualified medical care for patients, contribute to the protection and strengthening of people's health, prevent and treat diseases, comply with the requirements of professional ethics and deontology, and non-disclosure of confidential medical information, etc [2].

Burnout syndrome in medical professionals is now at epidemic levels and moreover, it is an area of widespread scientists' focus [3, p 1022].

According to the World Health Organization (ICD-11: Burnout QD85), burnout syndrome is understood as an occupational phenomenon that contains 3 components: emotional exhaustion/EE (emotional sphere), depersonalization/DP (cognitive sphere), and also reduced personal accomplishment/PA (motivational-volitional sphere) [4; 5; 6, p. 354]. In particular, burnout syndrome is defined as a long-term stress reaction that occurs as a result of a person's exposure to professional stressors of medium intensity and is manifested by physical, emotional and/or motivational exhaustion; burnout is a certain type of response to chronic professional stress that allows an individual to dose and save its own energy resources [7, p 76; 6, p. 352]. The main causes of burnout syndrome among medical professionals are the following: monotonous work, strict time limits/tight deadlines, lack of recognition and positive evaluation from coworkers/supervisor, conflicts in work environment, dealing with unmotivated patients, lack/absence of conditions for self-expression/personal development/grow at work, insufficient support from colleagues and/or excessive criticism, etc [6, p. 348].

Formulation of the aim of an article. Article aimed to determine the current state of burnout syndrome frequency in European medical professionals.

Presenting main material. The article includes the scientific studies of researchers who explored burn-

out syndrome among medical professionals (including family doctors) by using the Maslach Burnout Inventory/MBI and Copenhagen Burnout Inventory/CBI [8, p. 1-52; 9, p. 192-206].

A cross-sectional study (multinational survey) was conducted to identify the frequency of burnout syndrome and its correlates among oncologists (n=637) of Eastern Europe [10]. Participating countries were the following: Poland, Slovakia, Hungary, Republic of Moldova, Lithuania, Ukraine, Bulgaria, Albania, Croatia, Macedonia, Bosnia and Herzegovina, Romania, Montenegro, Slovenia, Serbia, Greece, Turkey, and Italy [10]. Authors included Turkey and Italy in this research because of their cultural similarities and geographic proximity to the above-mentioned countries [10]. Overall, 72% of participants were at high risk of burnout syndrome, whereas 44% of respondents were at high risk of EE, 28,7% of DP, and also 47,3% of PA (the MBI questionnaire) [10]. Female gender was associated with EE risk; radiation and clinical oncologists had higher DP risk; while percentage of cancer death, availability of oncologists (their amount), and years of service correlated positively with PA risk [10]. Scientists emphasized that unattended burnout syndrome can affect satisfaction and morale of physicians, speed up permanent leave from the profession, increase absenteeism, as well as lead or cause poorer quality of providing medical care that may include poor patient-physician communication or ineffective communication with colleagues [10].

A cross-cultural survey was carried out to determine cross-cultural differences in burnout syndrome levels among psychotherapists (n=2915) of 12 European countries during the COVID-19 pandemic [11]. Mean burnout syndrome levels were the following: 26,50 for Romania, 31,32 for Finland, 31,39 for Serbia, 32,21 for Austria, 33,90 for Switzerland, 35,61 for Spain, 37,38 for Poland, 38,36 for Bulgaria, 40,53 for Sweden, 42,12 for Norway, 42,14 for the United Kingdom, and 42,50 for Cyprus (the MBI-HSS questionnaire) [11]. Scientists found out that at the individual level burnout syndrome was negatively related to openness-to-change and to self-transcendence, whereas it was positively related to conservation values and to self-enhancement [11]. Moreover, male gender, being single, young age, and high levels of COVID-19-related distress, according to the authors, were significant burnout syndrome correlates [11].

In Poland a cross-sectional study was performed to determine the prevalence of burnout syndrome,

well-being, and also self-reported medical errors among physicians and residents [12, p. 626]. 67% of participants were identified as burned out (high EE or high DP), 51,6% experienced high levels of EE, 52,4% faced high levels of DP, and 46,4% had low levels of PA (MBI-HSS MP questionnaire), whereas 2/3 of respondents (63,7%) confessed of committed a medical error in the period of last 3 month, that was also strongly associated with burnout syndrome, that caused permanent and major morbidity (10%) or even led to patient death (5%) [12, p. 626-630]. Authors established that burnout syndrome was identified to increase odds of committing medical errors more than 5-fold [12, p. 627]. Furthermore, 13,7% of participants had suicidal ideation in the last 12 months [12, p. 627].

Another scientific research was carried out among nurses (n=1000) in hospitals in the South of the Czech Republic by using the MBI questionnaire [7, p. 75-76]. Authors found out that 46,7% of respondents had high levels of burnout syndrome, moreover 40% faced high levels of EE, 35% had high DP, and 16% scored reduced PA; 79% of participants reported about the importance of prevention of burnout syndrome and need of psychological help [7, p. 75].

A cross-sectional study was performed to determine the frequency of burnout syndrome and its psychosocial correlates among (n=350) GPs and residents of Hungary [13]. High levels of EE, DP and impaired PA were reported by 19,9%, 18%, and 45,9% of GPs, respectively, and by 18,5%, 25,5%, and 39,5% of residents, respectively (the MBI -HSS questionnaire) [13]. Scientists established significantly higher DP levels among male physicians, while female residents were still more likely to experience DP; age correlated negatively with EE and DP, and also positively with PA among GPs; high workload correlated positively with DP among female GPs; dependant care associated positively with burnout syndrome among female GPs; younger age determined to be the strongest predictor of EE, while fewer years of practice (experience) predicted DP, and male gender also predicted low PA [13].

A national study of burnout syndrome and spiritual health was conducted in the United Kingdom (hereinafter - UK) among general practitioners (n=1318) by using MBI-HSS (MP) during the COVID-19 pandemic [14]. According to this research scientists found that 19% of respondents had high risk of burnout syndrome, 68% had high EE, 48% had high DP and 30% had low PA; general practitioners with low levels of spiritual health were 5 times more likely to get in the highest risk of burnout group [14]. Similar results were demonstrated in another cross-sectional study in the United Kingdom among surgeons (n=601) during the COVID-19 pandemic [15]. High levels of EE scored 57% of respondents, high levels of DP hit 50%, and 15% experienced low PA (the MBI-HSS MP questionnaire) [15]. Degree

of worry about possible contracting COVID-19 oneself /family/friends was associated positively with burnout prevalence on all 3 domains [15].

A cross-sectional study was conducted to assess the prevalence of burnout syndrome and explore its associated factors with work environment in Lithuania (Kaunas region) among hospital physicians (n=647) by using the CBI questionnaire [16]. 44,8% of respondents faced personal burnout, 46,7% hit work-related, and 35,1% experienced client-related burnout syndrome [16]. Lack of supervisor, high job control, job insecurity, coworker support, and job demands were significantly associated with 3 burnout sub-dimensions [16]. The most significant predictor of all 3 sub-dimensions of burnout syndrome was job demands, whereas for client-related burnout significant predictor was job insecurity, and for client-related and work-related burnout significant predictor was job control [16]. Another study was carried out in Lithuania to investigate the frequency of burnout syndrome and its associated factors among intensive care physicians and anesthetists (n=220) [17, p. 105]. 34% of respondents reported high levels of EE, 25% hit high levels of DP, and 38% faced reduced PA (the MBI questionnaire), whereas 22% of participants were at high risk of alcohol dependence and also 13% of nicotine dependence, 24% of specialists were at high risk of depression, 84% of respondents reported that they had shorter sleep than eight hours, 1/3 of professionals suffered from digestive (31%), musculoskeletal (33%) or cardiovascular (28%) disorder [17, p. 105-107]. Overall, 42,3% of physicians met the criteria of burnout (high EE and/or DP scales) [17, p. 107]. Depressiveness, alcohol abuse, digestive and cardiovascular disorders were associated with burnout syndrome, moreover, such after-work activities as sedative medications abuse, alcohol abuse, stress release on relatives, and eating more than necessary were also related to burnout syndrome [17, p. 111].

Prevalence of burnout syndrome was investigated in another cross-sectional study during COVID-19 pandemic among health care workers (n=840) of the Federation of Bosnia and Herzegovina by using the CBI questionnaire [18, p. 482]. 77% of respondents had some form of burnout syndrome, whereas 32% had all 3 forms of burnout syndrome; mean total burnout syndrome score was $49,5 \pm 17,8$; mean score for personal burnout was $57,23 \pm 17,13$, for work-related burnout was $49,68 \pm 20,80$, and for patient-related burnout was $41,43 \pm 21,12$ [18, p. 482-485]. Female respondents had higher levels of personal and also work-related burnout, while HCWs aged 50-59 and 30-39 years, respondents that worked in primary care, and physicians had higher levels of patient-related burnout [18, p. 482].

A cross-sectional national survey was carried out among Croatian physicians (n=2557) to determine the frequency of burnout syndrome by using the MBI-HSS

questionnaire [19, p. 255]. 63% of respondents suffered from burnout syndrome, whereas 58% scored high levels of EE, 29% hit high levels of DP, and 52% experienced reduced PA; 16% of participants reported high levels on all 3 burnout dimensions [19, p. 255]. Physicians and residents in primary or tertiary care were at increased burnout risk, and physicians that worked in institutes were at decreased burnout risk [19, p. 255].

Observational cross-sectional study was carried out among primary care physicians (n=215) in Italy (province of Verona) during the COVID-19 pandemic to determine the psychological impact of the pandemic on GPs [20]. High levels of EE (34,2%), DP (26,4%), and low levels of PE (37,3%) were reported by GPs (MBI-GS questionnaire) [20]. Whereas 36% of participants had symptoms of anxiety, 17,9% faced symptoms of moderate depression, 35,9% reported symptoms of post-traumatic distress, and 25,4% experienced symptoms of burnout [20]. Another Italian research on the assessment of the prevalence of burnout syndrome among healthcare professionals (n=70) of Hematology unit that in a Teaching Hospital found out that 40% of respondents had high levels of EE, 24% hit high levels of DP, and 15% faced reduced PA (MBI questionnaire) [21, p. 45-46].

Cross-sectional, descriptive, observational, and multicenter study was performed in central Catalonia to identify the severity and prevalence of burnout syndrome among primary healthcare professionals (n=614) by using the MBI questionnaire [22, p. 86-87]. Overall, 30,9% of participants experienced at least 1 affected scale, whereas 14,3% hit 2 or more scales of burnout, and 3,7% of respondents suffered from severe burnout syndrome (all three scales) [22, p. 87]. Another multicentre longitudinal descriptive study among primary care physicians of Catalonia was conducted to identify the burnout syndrome frequency and evaluate the impact of COVID-19 pandemic on it (before and after the start of pandemic) by using the MBI questionnaire [23]. The scientists established that high levels on all burnout syndrome scales had 10% of respondents in January 2019, whereas in October 2020 this indicator increased to 50%; EE that already affected 55% of participants, jumped up to 77%, and the same situation was observed with DP and PA scores (30% to 70%, and 27,5% to 67,5%, respectively) [23].

In Serbia at the Institute for Oncology and Radiology a cross-sectional study of the frequency of burnout syndrome among healthcare professionals (n=432) was carried out by using MBI-HSS questionnaire [24, p. 669-670]. The prevalence of burnout syndrome was 42,4%, whereas 66,9% of respondents faced high levels of EE, 26,9% hit high levels of DP, and 47,2% had reduced PA [24, p. 669-672]. Scientists established that technicians/nurses had 1,41 times higher chance to experience burnout, than physicians (OR=1,41, 95%

CI 1,16-7,10), furthermore, with each 1 year of work experience/practice, the chance of burnout syndrome increased by about 2% (OR =1,02, 95% CI 1,00-1,92) [24, p. 669]. It was also shown by authors that with each 1 point in the score of PHQ-9 scale for depression, the probability of burnout syndrome increased by 14% (OR= 1,14, 95% CI 1,7-1,94) [24, p. 669].

A cross-sectional study was carried out in Portugal among primary care physicians (n=214) during the COVID-19 pandemic to assess the prevalence of burnout syndrome and also associated contributing factors [25]. High levels of burnout syndrome were identified for three dimensions (the CBI questionnaire): 65,9% of respondents faced personal burnout, 68,7% experienced work-related burnout, and 54,7% had patient-related burnout [25]. A strong association was identified between years of professional experience, gender, anxiety and depression, and burnout syndrome levels [25].

A prospective, observational, and non-comparative study among pain medicine physicians (n=301) of Spain showed that 7,3% of respondents hit the criteria of burnout syndrome, 22,6% faced high levels of EE, 22,3% experienced high levels of DP, and 24,9% reported low PA (the MBI-HSS questionnaire) [26, p. 2398-2402]. The presence of burnout syndrome was associated positively with patients' pain relief [26, p. 2398].

A cross-sectional study among family medicine doctors (n=316) of Slovenia showed high burnout scored in 1 dimension by 24,8% of respondents, in 2 by 17,2%, and in all 3 by 6%, whereas high levels of EE were present among 25,2% of participants, high DP scored 25,8%, and low PA rated 26,2% of professionals (the MBI questionnaire) [27, p. 155-158]. Moreover, high levels of EE was determined among older physicians that had longer work experience, dealt with <40 patient/day, worked in rural settings, and had a chronic illness [27, p. 155].

A cross-sectional study among German general practitioners (n=214) revealed that high levels of EE reported 34,1% of respondents, 29% scored high levels of DP, and 21,5% experienced low PA, 7,5% scored for all 3 burnout dimensions (the MBI questionnaire) [28]. Female physicians, those that demonstrated bad work-life balance, those who were unsatisfied with their job, and those who regularly used few stress-regulating measures were at higher risk of EE [28]. In addition, prevalence of burnout syndrome was higher among GPs in group compared with GPs in solo practice [28].

Another research was conducted in France among general practitioners (n=332) to investigate the impact of COVID-19 outbreak on the mental health (including burnout syndrome) of GPs [29, p. 93-94]. The scientists established high levels of EE, DP, and PA (24,46%, 42,41%, and 5,26% respectively) by using MBI questionnaire; women experienced more stress and also burnout syndrome symptoms than men; up

to 42% of respondents had psychological disturbances [29, p. 93]. A nationwide survey was performed to investigate the prevalence of burnout syndrome and its risk/protective factors among orthopedic and trauma surgeons (n=441) in France [30, p. 395]. 39% of participants faced burnout symptoms, 10% suffered from severe burnout (pathological scores on 3 or 2 burnout scales), 14% hit high levels of EE, 23% experienced high levels of DP, and 19% had reduced PA (the MBI questionnaire) [30, p. 395]. Moreover, 43% of respondents wouldn't recommend to their children to build a career path in orthopedic surgery, whereas 8% of specialists reported suicidal ideation [30, p. 395]. Public-sector practice and pathologic GHQ-12 scores were determined as risk factors, while male gender and outside activity were identified as protective factors for burnout syndrome [30, p. 395].

Conclusions and prospects for additional research.

Based on our study, we consider it necessary to conclude the following:

1. The majority of research on the investigation of burnout syndrome frequency in European medical professionals have been carried out in Poland, the Czech Republic, Hungary, the United Kingdom, Lithuania, the Federation of Bosnia and Herzegovina, Croatia, Italy, Serbia, Portugal, Spain, Slovenia, Germany and France, etc.

2. The research conducted to determine the current state of burnout syndrome frequency in European medical professionals showed the presence of burnout syndrome in medical professionals ranging from 3,7% to 77%.

3. According to the above analysis of the data, increased risk of burnout syndrome has such medical professionals as: oncologists, resident physicians, primary care healthcare workers, general practitioners, intensive care physicians, anesthetists, psychotherapists.

4. Additional scientific research is required to investigate the problem of burnout syndrome frequency worldwide, in particular, to develop global preventive programs for medical professionals that are effective.

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