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## Professional burnout of doctors in Poland and in the world. Research review

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**Summary:** The work of a doctor is one of the most demanding. It requires not only a great deal of knowledge, but also a lot of commitment, responsibility and often devoting one's private life. It is called a prestigious job for a reason. Unfortunately, it is also very absorbing both mentally and physically. Increasing stress leads to emotional exhaustion, and its consequence may be burnout.

**Keywords:** burnout, doctors, stress, surgicaldoctors, non-surgical doctors

The basic problem of healthcare worldwide is the insufficient number of doctors. The society is aging, and there are fewer and fewer people deciding to work as a doctor. Due to the shortage of employees, doctors often work much longer than they should. Research from 2016 shows that as many as 59% of Polish doctors work continuously for more than 24 hours at least once a year, and as many as 29% at least once a week. 14% admitted that over 48% had been doing their job continuously. Most often such long shifts are taken by men - 25%. In turn, women are much less frequent - 8%. Research shows that 47% of doctors with at least 25 years of service work during their on-call duty for more than 24 hours. It turns out that 66% of younger doctors with less than 7 years of work experience also work above the norm (4,7,13).

According to West, the occupational burnout of doctors can be classified as an epidemic that affects doctors at every stage of their career, both beginners and those with completed specialization (18).

The results of the 2014 research confirm that 75% of Polish doctors are satisfied with their work, 65% are satisfied with their own achievements, and 36% see prospects for the future (16).

Statistics show that burnout syndromes occur in 75% of residents and 25% of medical students. The Maslach Inventory (MBI) study on fourth and later fifth year medical students show an increase in burnout symptoms from 27% to 31% in the same group of respondents. The villages is simple. The features of occupational burnout increase with each year of study, but the greatest consequences appear after their completion during professional work (9). The problem of burnout was examined nationally in the United States in 2011. 7,000 doctors of various specialties were examined. Among them, 46% had at least one sign of burnout, and only 49% admitted that they felt work-life balance. The study confirms the relationship between the occupational burnout index and the type of physicians' specialization. It turns out that the highest levels of burnout occur in emergency medicine physicians and primary care physicians. After three years, both variables increased, resulting in the reporting of at least one symptom of burnout in 55% of physicians, as well as a sense of work-life balance in 41% of physicians.

In 2018, data was published in Canadian Family Physician showing the burnout level of 50% of physicians. Interestingly, burnout syndromes already occur in over 30% of medical students and even 50% of interns (8).

American scientists, based on research conducted in 2014, proved that as many as 54% of doctors report the symptoms of burnout, 32% are exhausted, over 10% admit to committing a medical error in the last 3 months, and 6% thought of committing suicide. The study also showed that medical malpractice by doctors is closely associated with increased rates of burnout, fatigue and suicidal ideation. The fewer medical errors, the better the doctors' well-being and the greater the sense of security at work (15).

The scary fact is that every year in the United States about 400 doctors die from suicide as a result of depression, drug addiction and burnout symptoms (1). It turns out that the type of specialization is influenced by the intensity of doctors' work. Those with surgical specialization very often work under time pressure, which causes additional stress. The first place in terms of uninterrupted working time is occupied by doctors specializing in emergency medicine.

It has been confirmed that as many as 66% of them work continuously for more than 24 hours at least once a week. The second place was taken by surgeons with a score of 58%, and the third place by orthopedists (43%). It is also important that over 30% of doctors from the first two groups admitted that they sometimes work continuously for more than 48 hours (7).

French scientists in 2017 conducted a study of occupational burnout of surgeons and orthopedists using the MBI questionnaire. 441 respondents took part in the study, of which over 90% were men. On average, everyone in them was 50 years old. This study showed the presence of burnout symptoms in 39% and symptoms of severe burnout in 10% of the surveyed doctors. The negative impact of burnout symptoms on doctors' personal lives has also been confirmed, which significantly reduces their quality of life and increases suicidal thoughts. It turns out that male people and those who engage in external activity are less likely to suffer from burnout (5).

The review article obtained from the MEDLINE database shows that as many as 77% of the available studies assess the occupational burnout of surgeons at 34%. The factors that predispose occupational burnout are young age, bad interpersonal relations, imbalance between work and private life, conflict between work and home. Based on a review of 71 scientific articles, it was found that surgeons had the highest rate of suicidal ideation in relation to doctors of other specialties. Nevertheless, they display a high level of professional satisfaction (12).

American research from 2017 indicates that the occupational burnout of surgeons affects 53% of respondents, while a few years earlier it was at the maximum level of 40%. It was found that the greatest factor predisposing to burnout of the surveyed doctors was the imbalance between work and private life. It has been proven that statistically a vascular surgeon works on average 61 a week and spends 20 hours of it on performing surgeries. Distorted proportions between time spent at work and time with family lead to increasing stress. It turns out that over 25% of women surgeons have an alcohol problem. Surgeons, on the other hand, belong to the group of medical surgeons with the highest degree of suicidal thoughts. Despite these disturbing data, over 70% of respondents are satisfied with their chosen specialization, but only 50% of them will persuade their children to follow in their footsteps (11).

Analysis of data from the PubMed, MEDLINE and Web of Science databases from 1996-2016, 25 studies were selected using the following keywords: burnout and intensive care unit. It has been shown that the occupational burnout of doctors working in the Intensive Care Unit is at the level of 6 - 47% (3).

Assessment of the level of occupational burnout of surgical doctors was assessed based on a meta-analysis from the MEDLINE, EMBASE and PsycINFO databases. 116 cross-sectional studies were used, and the total group of respondents was 3581. The tool used was the MBI questionnaire, which assesses emotional exhaustion, depersonalization and decreased feeling of personal achievement. Research has shown that 3% of US operating physicians suffer from extreme burnout, that is, "burnout syndrome". It turned out that in comparison with neurosurgeons, general surgeons, oncology surgeons and transplantologists, ENT specialists have significantly lower rates in the three individual subscales measured with the MBI. In contrast, orthopedists and gynecologists show a moderate level of emotional exhaustion and depersonalization compared to physicians of other specialties.

The above research results indicate that the type of specialization influences the occurrence of occupational burnout factors. The duration of the specialization, the requirements related to the type of specialization, the number of hours worked, but also interpersonal relations in the workplace, the sense of clinical competence and the possibility of using social support systems (2) have a particular impact.

Another review of research from 2018, based on 14 articles found in the PUBMED database, indicates that out of 6,500 surgical doctors, trauma surgeons and orthopedists are the most likely to burn out. Common opinion suggests that orthopedic specialization is one of the most difficult and demanding, but there are insufficient data to clearly confirm that doctors with this specialization have a significantly higher degree of burnout than the others (6).

According to the most recent research by Smith et al. From 2021, occupational burnout among surgical doctors is between 40 and 75%. The symptoms that were assessed were: underestimation, chronic fatigue, depression, cynicism, dissatisfaction with work and undermining of professional activities (14).

If we consider non-surgical doctors, it turns out that family medicine doctors are the most vulnerable. This is due, among other things, to the fact that they are particularly exposed to stress caused, on the one hand, by high demands and claims on the part of patients, and, on the other hand, by the dynamically changing healthcare system. The data show that the symptoms of burnout are already visible in young doctors who are still in the process of specializing in family medicine. The results of research on stress factors predisposing to burnout are as follows: 46% are conflict situations with patients, 21% are disagreements with doctors of another specialty, and 33% are caused by problems in the health care system, which include, among others, a lot of office work and difficulties with completing the specialization (17).

A study of 150 Portuguese GPs also confirms a high level of burnout. The assessment tool was one of the most popular questionnaires for the assessment of occupational burnout - the MBI Questionnaire. Thanks to it, a high level of emotional exhaustion was proved in a quarter of the respondents, in 17% no sense of personal achievement, and 16% had a high level of depersonalization (10).

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