



*Review*

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## BURNOUT SYNDROME IN MEDICAL RESIDENTS

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### ABSTRACT

**Objective:** Occupational burnout occurs more often among doctors than among those working in other sectors. It is an indisputable fact that medics whose work requires almost continuous contact with people are more prone to burnout. It is noticed that the burnout syndrome affects doctors at all stages of their careers - from residents to experienced practitioners.

**Methods:** This paper performs a literature review on the frequency and causes of professional burnout among resident doctors.

**Results:** The results of numerous large-scale studies are conclusive that the intensive workload of doctors, including night shifts and overtime, and the lack of work-life balance, due to the numerous resident duties, are the most common predisposing factors for the development of burnout syndrome in resident doctors. Another important conclusion from these studies is that a high level of BOS is mainly associated with depression and inadequate patient care.

**Conclusions:** Professional burnout syndrome among resident doctors is an ongoing issue. It is then required that additional subjects, such as building skills to recognize and combat stress and implement strategies to overcome it, should be included in resident doctors training programmers.

**Key words:** BOS, medical residents, COVID-19

### INTRODUCTION

In recent years, modern medicine has been characterized with extremely intensive development of science and technology and increasing competition between different players on the health care market. In parallel, employers' demands for knowledge, skills, expertise and organizational behaviour of doctors and other medical professionals are increasing. This sustained trend leads to significant changes in the lives of medical professionals in society as a whole – an increase in the expectations of managers and patients, increased patient

requirements, conflict situations and other factors of a different nature, causing stress for the resident practitioner on a daily basis. A further pressure from the last 2 years is also exerted by the COVID pandemic.

Work-related stress produces unusual multilayered consequences on personal, interpersonal and organisational levels. This leads to the development of an adaptive capacity on an individual basis in the context of substantial information, technological and organisational change, and this phenomenon is an extremely topical problem for researchers and managers.

Each medic devotes a significant part of their time for their professional development, including training, residency, and at a later stage mentoring and/or taking a managing post at a

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different level in the health system. Medical practitioners are subject to constant "pressure from the working environment". This work related stress is ongoing, often left undetected by the individual, difficult to detect and is accompanied by a number of symptoms which are manifested at a later time.

Burnout among doctors was first described in 1974 as a work-related syndrome. The main characteristics are associated with emotional exhaustion, leading to unusual inefficiency and a cynical attitude to daily clinical activities, including neglect of patients [1]. The classic description of the burnout syndrome includes three categories – a high level of emotional exhaustion (EE), a high level of depersonalisation (DP), and a low level of personal satisfaction (PA) [2]. Stress and burnout can be caused by a combination of excessive workload, extended working hours, constant complaints from patients, and a lack of timely support from the hospital administration. There is evidence proving differences in response to stress by males and females over a longer period of time. While men show an increased level of physical exhaustion, psychological symptoms prevail in women. Burnout victims begin to lead unhealthy lifestyles, including overeating and increased alcohol intake. In addition, work-related stress affects negatively members of the medics' families.

Occupational burnout is more prevalent among doctors than among those working in other sectors. It is an indisputable fact that medics who are working face-to-face with the public, are prone to burnout[3]. This would explain the higher levels of this condition among general practitioners than laboratory doctors, pathologists, etc. Increased administration workload related to the treatment of patients is a further serious challenge for doctors. A study shows that for every hour of clinical work, the doctor has to spend 2 hours on administrative activities. It is noted that burnout affects doctors at all stages of their careers - from residents to experienced doctors. This paper focuses on this category of medical professionals – the residents.

## MATERIALS AND METHODS

The aim of this paper is to explore the problem of the prevalence of BOS among resident medics. In order to achieve it, a large-scale literature review was conducted of numerous multidisciplinary studies on the subject.

## RESULTS AND DISCUSSION

At the end of the last century, numerous studies began in the United States on the topic of BOS prevalence among resident medics. The vast majority of them prove that half of the medics who took part in the study experienced burnout syndrome. The most affected group of practitioners is that of resident obstetrics and gynecologists (75%), and the specialists in family medicine had the least number of affected by BOS– 27%. [4].

The article titled „Resident Burnout“ summarises and publishes the results from 15 multicenter studies on the occurrence, prevalence and causes of burnout syndrome among resident doctors over the period of 20 years (1983 – 2004). According to the results of the studies intensive work (including night shifts and overtime), and lack of work-life balance (due to the numerous duties of specialisation) are the most common predisposing factors for the development of burnout syndrome in specialized doctors. Another important conclusion from these studies is that the high level of the syndrome is mainly associated as a cause for depression and inadequate patient care [5].

The situation in Ireland is similar to that in the US, with prevalence rates ranging from 25% to 60% in different studies where representatives of certain medical specialisations are at higher risk [6]. In the last decade, as a direct result of the particular economic climate, Ireland's health system suffered significant budget cuts which led to both a decrease in motivation and work satisfaction of frontline workers and an increase in international migration [7, 8]. Resident doctors in Ireland have experienced further pressure stemming from a systemic failure to fully implement the European Working Time Directive [EWTD], which limits doctors' working hours to 48 hours a week. Research shows that the combination of staff shortages,

excessive workload and limited training opportunities for young doctors have a direct impact on their health and well-being [9]. A qualitative study of the views of resident doctors on working conditions, many respondents reported feeling undervalued by the system and reported fatigue and subsequent increased anxiety and uncertainty regarding their clinical work and decision-making skills, i.e. patient care was largely compromised [10]. Another interesting conclusion from these studies is the presence of a direct correlation between the onset of the burnout syndrome among residents and the frequency of self-reported medical errors. This study is a warning of the need to protect this group of medics in order to keep patient care and safety at a satisfactory level [11].

An online survey conducted a few years later found that the overall level of occupational burnout for American doctors had decreased, possibly due to the measures taken by the AMA and 20 other medical organisations in the United States to address the problem of work related stress. The same study concluded that doctors' burnout rates continue to decline and remain below 50% among doctors in the U.S., as a result of the three-year collaboration of the AMA, Mayo Clinic and Stanford University School of Medicine.

More than 15,000 American doctors from 29 majors were enrolled in a study conducted by the authoritative website Medscape. The questions relate to the factors leading to BOS and what impact they have on the lives of doctors.

The highest burnout rates are recorded for the following six medical specialties:

- Urology: 54%.
- Neurology: 50%.
- Nephrology: 49%.
- Endocrinology: 46%.
- Family medicine: 46%.
- Radiology: 46%.

The lowest burnout rates are recorded for the following six medical specialties:

- Public health and preventive medicine: 29%
- Ophthalmology: 30%.

- Orthopedics: 34%.
- Psychiatry: 35%.
- Otolaryngology: 35%.
- General surgery: 35%.

Medical training and clinical practice are constantly associated with stress - often welcome as it is considered a positive motivating factor. However, the well recognized triad of emotional burnout poses the question the role of stress in these cases. Research has shown that ongoing and continuous stress, including physical, emotional and mental exhaustion, can lead to burnout [12]. The 2019 Coronavirus Disease Pandemic (COVID-19) has further had a long-lasting effect on the mental health of health workers, a trend that seems particularly pronounced among frontline workers, where the risks for depression, anxiety and distress have increased by more than 50%. [13, 14]. The practice in our country (Bulgaria) has shown that the majority of residents work actively and for an extended period of time in the COVID wards. In addition to being separated from their usual specialisation, the residents are subjected to additional exertion (both physical and mental) and work-life imbalance. This environment creates the ideal conditions for the development of professional burnout.

Simultaneously, a small number of medical students were also involved in the care of patients in the COVID wards. It was noted that some of them were not prepared to work in such an extreme environment. This is evidence that academic institutions should create an engaging learning environment by focusing on real-life hospital scenarios and applying situational clinical judgement. This can reduce the risk of future residents to experience stress due to clinical uncertainty. In addition, the state's regulatory policies must ensure an optimal flow of clinically useful data into the health information system [15].

Therefore, the literature review presented so far is the basis for future serious studies on the problem among Bulgarian resident doctors.

## CONCLUSION

In conclusion, the following can be noted:

1. Professional burnout is an ongoing issue for resident medics.
2. BOS in residents is manifested mainly as depression or inadequate patient care.
3. The need to update national legislation in strict compliance with European Working Time Directive (EWTD), which limits doctors' working hours to 48 hours per week.
4. Inclusion of disciplines that build skills for recognizing and combating stress in the medical students and graduates of clinical medical specialties curriculum.

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