

# Burnout syndrome as an occupational disease in the European Union: an exploratory study

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**Abstract:** The risk of psychological disorders influencing the health of workers increases in accordance with growing requirements on employees across various professions. This study aimed to compare approaches to the burnout syndrome in European countries. A questionnaire focusing on stress-related occupational diseases was distributed to national experts of 28 European Union countries. A total of 23 countries responded. In 9 countries (Denmark, Estonia, France, Hungary, Latvia, Netherlands, Portugal, Slovakia and Sweden) burnout syndrome may be acknowledged as an occupational disease. Latvia has burnout syndrome explicitly included on the List of ODs. Compensation for burnout syndrome has been awarded in Denmark, France, Latvia, Portugal and Sweden. Only in 39% of the countries a possibility to acknowledge burnout syndrome as an occupational disease exists, with most of compensated cases only occurring in recent years. New systems to collect data on suspected cases have been developed reflecting the growing recognition of the impact of the psychosocial work environment. In agreement with the EU legislation, all EU countries in the study have an action plan to prevent stress at the workplace.

**Key words:** Burnout syndrome, Occupational diseases, Psychosocial stress, Mental disorders, Compensation, Prevention

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In parallel with growing high demands on employees across all occupations the negative influence on workers' mental health is continuously rising and chronic stress-related occupational diseases, especially burnout syndrome, are becoming an important issue<sup>1,2</sup>.

The ILO/WHO List of occupational diseases (ODs) revised in 2010, which serves as an example for all countries in the world, includes in the Chapter 2.4, among the "Mental and behavioural disorders", the "Post-traumatic stress disorder and additional mental or behavioural disorders not mentioned". On the other hand, the European Commission Recommendation (EC 2003) concerning the European Schedule of ODs does not include any stress-induced disorder. However, in several countries, there is a possibility to update the List of ODs and criteria of the diseases<sup>3,4</sup>.

The term "burnout" was first used in 1974 by Freudenberger in his study called "Staff burnout". Shortly after that, in 1976, burnout syndrome was defined by Maslach and Jackson as a three dimensional syndrome characterized by exhaustion, cynicism and inefficacy, i.e. the opposite to engagement, described as energy, involvement and efficacy<sup>5</sup>. Burnout syndrome prevention has been discussed worldwide due to the economic burden of the absenteeism and other negative consequences related to job satisfaction, work performance and patient care. According to Kissling *et al.*, the German yearly average number of sick days attributed to burnout rose from 0.67 in 2004 to 9.1 d in 2011, i.e. 14 times<sup>6</sup>. In the Netherlands, about 15% of sickness absence of the working population was caused by burnout and the annual cost of this disorder reached 1.7 billion Euros in 2005<sup>7</sup>.

Nowadays, there is no doubt that burnout syndrome can be caused and/or aggravated by work and it is very important to diagnose it early and introduce preventive measures. About 8% of the German working population believe they suffer from burnout syndrome<sup>6</sup>. In a study among 7 400 Czech physicians, 34% feel that they already show symptoms of burnout and 83% perceive themselves to be at a risk of it<sup>8</sup>. Differences among various specialists were seen, the highest risk being found among traumatologists, hemodialysis workers, infectionists, internists, gynaecologists, radiologists and surgeons. Interestingly, in this study, occupational physicians stood at the other side of the scale with the smallest proportion of physicians with burnout syndrome.

Most exposed occupations are the helping professions such as health care workers, social workers, police officers, and teachers and high touch jobs such as customer

services; some studies also concern lawyers, managers, etc., who however are less involved<sup>9</sup>. Based on data collected by The Health and Occupation Research (THOR) Network in the UK, a national occupational health surveillance scheme utilising voluntary data reported by medical experts (including psychiatrists and occupational physicians), workload and communication difficulties with other workers seem to represent the most significant risk factors for developing work-related mental health problems<sup>10</sup>.

The reason why it is difficult to prevent stress in the workplace is also the problem of its evaluation. The level of stress varies with the type of job, and its perception is considerably subjective. Karasek's Job strain model uses structured questionnaires and deals with two aspects, such as "demands" and "decision latitude". Subjects with high demands and low decision latitude are the most strained and at the highest risk of developing stress related disorders<sup>11</sup>. According to Siegrist's effort-reward imbalance model, the most stressful condition occurs when the reward does not match the effort made<sup>12</sup>. Recent review on the job stress models showed the highest value for predicting burnout syndrome of following models: the Job Strain Model and the Effort/Reward Imbalance Model (which were the most used and whether used in combination most effective), the Mediation Model of Maslach and Leiter, and other new models, such as the Job Demand Resources Model and the Demand Induced Strain Compensation model.

The latest revision of the International Classification of diseases (ICD-10) does not denominate burnout syndrome as an individual diagnosis. Burnout syndrome is listed as an additional diagnosis under Chapter XXI - Problems related to life-management difficulty, coded as Z 73.0 (State of vital exhaustion). Similarly, the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), i.e. the 2013 update to the American Psychiatric Association, does not include burnout syndrome. According to some specialists, burnout syndrome is simply a state of emotional and physical exhaustion which to a great extent overlaps with depression. However, most researchers believe that burnout should be better considered as a work-related disorder<sup>13</sup>.

This study aims to map the evaluation systems of burnout syndrome in the countries of the European Union (EU), possible compensation of this disorder, and preventive measures used. It was agreed by the Charles University Review Board and supported by the institutional grants.

Occupational health specialists from all 28 EU countries were contacted electronically and asked to complete a

**Table 1. List of Occupational Diseases, possibility to acknowledge burnout syndrome as an occupational disease, evaluation criteria, numbers of compensated cases and preventive measures in 23 European countries Ref 14\*****[OD=Occupational Disease, NCOD=Netherlands' Center for Occupational Diseases, NA=not applicable]**

Country	Existence of List of OD's	Possibility to acknowledge burnout syndrome	Evaluation Criteria	No of subjects with acknowledged burnout syndrome (yr)	No of compensated subjects (yr)	Action plan to limit stress at work (% establishments)*	Participation of employees to address psychosocial risks (% establishments)*	Use of psychologists (% establishments)*
Denmark	YES	YES, open item	Committee evaluation, associated with Depression (F 32.9, F 33.0), adjustment disorder (F 43.2), anxiety disorder (F41.9)	738 (2005–2015)	592 (2005–2015)	51	77	38
Estonia	YES	YES, open item	Individual occupational examination	0	0	9	52	4
France	YES	YES, additional system	Committee evaluation, the rate of incapacity minimum 25%, associated with diagnosed mental disorders	1 (2015)	1	30	60	15
Hungary	YES	YES, open item	Individual occupational examination	0	0	18	53	4
Latvia	YES	YES, listed	Individual psychiatric and occupational examination	42 (2013–2015)	42 (2013–2015)	20	55	8
Netherlands	NO	YES	Individual occupational examination (according to NCOD guidelines)	1989 (2015)	NA	26	62	28
Portugal	YES	YES, open item	Individual psychiatric and occupational examination	not available	7	20	55	12
Slovakia	YES	YES, open item	Committee evaluation, Individual psychiatric and occupational examination	0	0	15	43	10
Sweden	NO	YES	Individual psychiatric and occupational examination, duration of the disorder for one year at least and minimum 6.66% loss of income	329 (2015)	99 (2015)	51	73	59
Austria	YES	NO	NA	0	0	22	77	20
Belgium	YES	NO	NA	0	0	36	63	36
Croatia	YES	NO	NA	0	0	9	56	28
Czech Republic	YES	NO	NA	0	0	8	58	7
Germany	YES	NO	NA	0	0	20	66	11
Ireland	YES	NO	NA	0	0	43	63	11
Italy	YES	NO	NA	0	0	49	63	10
Lithuania	YES	NO	NA	0	0	24	46	6
Finland	YES	NO	NA	0	0	36	71	60
Poland	YES	NO	NA	0	0	14	46	22
Romania	YES	NO	NA	0	0	52	68	43
Slovenia	YES	NO	NA	0	0	31	56	24
Spain	YES	NO	NA	0	0	32	63	16
United Kingdom	YES	NO	NA	0	0	57	59	12

questionnaire. These contacts were based on the list of participants invited by the Directorate-General for Employment, Social Affairs and Inclusion of the EU Commission in 2015 and 2016 in Luxembourg as national experts in diagnostic criteria and occupational diseases statistics, to unify the data collection on occupational diseases. If needed, members of the Monitoring Occupational Diseases and tracing New and Emerging Risks in a NETWORK (MODERNET) were approached. Questions focused on the presence of an official national List of ODs, the possibility to acknowledge burnout syndrome and compensate patients, diagnostic criteria, and prevention strategies. In the second step, the participants from the countries where

the compensation was declared were contacted to provide data concerning the compensation and number of cases.

Participants from 23 EU countries completed the questionnaire and were included in the study. As can be seen in Table 1, the List of ODs is used in 21 countries. In 9 countries (Denmark, Estonia, France, Hungary, Latvia, Netherlands, Portugal, Slovakia and Sweden) burnout syndrome can be acknowledged as an occupational disease. Solely in Latvia, burnout syndrome is explicitly listed on the List of ODs. A further 5 countries (Denmark, Estonia, Hungary, Slovakia and Portugal) accept chronic stress-related occupational diseases as occupational through the “open item” in the List of ODs. In the Netherlands and

Sweden, countries not using List of ODs, any disease or injury may be acknowledged as occupational, supposing a sufficient proof of the causality has been given. France may use “Additional occupational disease recognition system”. On the other hand, in Italy, burnout syndrome can be reported only as a disease of probably other than of occupational origin, without awarding any benefits. German List of Occupational Diseases was enlarged in 2017 and now includes 80 diseases; however the burnout syndrome is not listed.

Also the diagnostic criteria differ among the countries. In most countries, the evaluation is strictly individual and the decision is made by regional/national committees of recognition of occupational diseases. Cases with concurrent non-occupational factors should be excluded.

Compensation, after the causality of occupational origin has been recognized, may be reimbursed in a total of eight countries. Till now, the benefits through the social insurance to patients with burnout syndrome have been provided in five countries only (in Denmark, France, Latvia, Portugal, and Sweden).

Additional specific criteria are used in several countries to acknowledge burnout syndrome as an occupational disease. In Denmark, where there is the highest number of compensated cases, burnout syndrome can be acknowledged only if certain psychiatric diagnoses are present, as shown in Table 1. Evaluation is based on exposure data such as working under a stressful environment, occurrence of many short deadlines or lack of support from the management, etc. Cases must be presented to the ODs Committee, composed of representatives of the Labour Market (Danish employers and the Danish workers organization). About a third of compensated cases came from healthcare and educational environment, another third from social-work area and the rest from other branches. In Latvia, 17% cases were directors, 14% firefighters and engine drivers, 14% taxing inspectors, 12% healthcare workers, 12% judges, 10% teachers, 7% bookkeepers and 14% other occupations. The compensated occupations in Portugal included bookkeeper, commercial clerk, businessman, pharmaceutical assistant, toolmaker (all 14%), and two unspecified jobs (30%).

Much of compensated cases in Sweden with known jobs were healthcare professionals (36%, i.e. doctors, nurses, assistant nurses), followed by jobs requiring shorter university education (24%), directors of small or medium-sized companies (20%), and other jobs (20%).

In France, chronic stress-related occupational disorders (i.e. depression, anxiety disorders and burn-out syndrome)

can be recognized and compensated as occupational diseases using an additional occupational disease recognition system (Système complémentaire): if the disease can be directly attributed to the victim’s usual work activity and has led to his or her death or permanent disability. In such cases of “off-list” recognition, presumption of origin is also forfeited. The portfolio must be submitted to the Regional Committee for the Recognition of Occupational Diseases to evaluate whether there is a direct and essential link between the usual work activity and the disease.

Netherlands’ Center for Occupational Diseases (NCOD) Guidelines for occupational physicians, general practitioners and psychologists are followed in the Netherlands where burnout syndrome is included in “stress-related disorders”<sup>7)</sup>. The 13 psychological criteria for inclusion are: malaise-apathy, sense of being over-burned, anhedonia, sense of powerlessness, demoralization, depression, emotional instability concentration problems, tension, ruminating, irritability, demotivation, inability to think clearly. In addition, physical problems (fatigue, sleeping problems, headache, abdominal pain, muscle pain etc.) may be counted. The three exclusion criteria are: acute stress disorder, psychiatric pathology and somatic disease. Excessive exposure to factors associated with effort-reward imbalance model of Siegrist and Job Strain Model of Karasek are considered sufficient to cause occupational burnout. Some of them are: high psychological job demands, little job autonomy, little social support from colleagues and/or managers, procedural injustice in the organization, relational injustice in the organization and high emotional demands. The final decision of work relatedness is based on a judgement of the occupational specialists and on the number of stressing factors and their higher level as opposed to the intensity of exposure to non-work-related psychosocial stressors. The most occurring professions within the acknowledged cases were: service staff and sellers (21%); intellectual, scientific and artistic occupations (20%); directors (19%), administrative staff (17%), and 23% other. The highest numbers of acknowledged cases may be explained by the fact that in the Netherlands there is no compensation given.

As can be seen in Table 1, the numbers of compensations in the countries differ considerably, as several of them did not acknowledge any occupational burnout syndrome in spite of the possibility to do so.

The burnout syndrome has not yet been officially accepted as an occupational disease in most of EU countries, even though according to Eurobarometer survey in 2014, 57% of the responders reported that exposure to

stress is the main health and safety risk they face in their workplace today<sup>14</sup>). One of the reasons might be that only 53 % surveyed establishments in the EU-28 report had sufficient information on how to include psychosocial risks in the risk assessments. Also, the absence of a clear individual diagnosis for burnout syndrome and the use of many different “F” diagnoses such as anxiety, depression, or adjustment disorder can lead to confusion in how it is reported.

However, most countries have developed systems to collect data on suspected cases of burnout, either by using their open-item in the List of ODs, or, in the absence of a list of ODs, allowing burnout to be acknowledged and compensated. In the countries, where the compensation is possible, the compensated cases are seen especially in the recent years (Denmark, Latvia, Sweden). In addition, a high number of cases were acknowledged according to NCOD criteria in the Netherlands in 2015, as can be seen in Table 1. In some countries, for example France and the United Kingdom, there are also additional surveillance systems (not linked to compensation) which enable the reporting of “new” occupational diseases, including burnout. In France, it is RNV3P (Réseau National de Vigilance et de Prévention des Pathologies Professionnelles, i.e. National Network for Monitoring and Prevention of Occupational Diseases) which started in 2001 and has collected 508 cases of burnout syndrome until 2015<sup>14</sup>). Similarly, in the UK system called THOR the psychiatrists have reported 24 cases of burnout (1999 to 2009), occupational physicians 34 cases (1996 to 2015) and general practitioners 6 cases (2006–2015)<sup>10</sup>).

Prevention of stress-related diseases in the workplace is carried out in EU countries as obliged by law, in agreement with the EU legislation. The Risk assessment includes prevention by avoiding or reducing workloads, threat of violence, harassment, lone working or recommends obligatory working pauses, etc.<sup>14</sup>). An action plan to prevent stress at the workplace has been built up in 40% of establishments with more than 19 employees in 28 EU countries, and the percentage rises with the size of the enterprises. Sixty percent of establishments in EU introduced direct participation of employees to address psychosocial risks and average 16% establishments use a psychologist<sup>15</sup>). The situation in EU countries is shown in Table 1.

In Sweden, social and organizational factors are the second most common cause of reported occupational illnesses after musculoskeletal factors. This concerns about a third of reported occupational illnesses with an increase of 70% since 2010.

Emphasis on prevention from the state authorities and so

from workers shows that burnout syndrome is a problem that economically burdens, and in a context of effectivity and workers' health, has to be dealt with. With such perspective European Agency for Safety and Health at Work (EU-OSHA) supported prevention of occupational stress related disorders by the campaign: „Healthy workplaces manage stress“, that provide tools and guidance for stress management. It was shown, that a psychologically safe environment contributes to good patient care and at the same time works as a protective factor against burnout of the staff.

There are several limitations in our study. One of them is that we were not able to get answers from all European countries even if we have repeatedly attempted (five countries are missing). Another limitation is the fact, that there are significant differences in the legislation in European countries and even the acknowledgement of an occupational disease does not mean that similar benefits are given to the patients in individual countries. The countries don't register the occupations of the compensated patients in a similar way and mostly, only the economic sector branches are available. Importantly, due to the design of the study, data collection provided by national experts could have given a selection bias concerning participants. Also, their specialisation was closer to the compensation part than to preventive measures. Therefore, to complete the data, we have used data from ESENER EU-OSHA study<sup>15</sup>). There is no European Society for Occupational Health, which, to our meaning could improve the communication and the unification of both preventive measures and compensation criteria.

The recognition of burnout syndrome is problematic. In national nosological classifications such as the Dutch and Swedish classifications, burnout is defined quite differently from the way it is defined in research. In Dutch classifications, burnout is equated with neurasthenia, a condition that is nothing new since it was isolated about 150 yr ago. In Swedish classifications, the term exhaustion disorder is employed, but the involvement of work at an etiological level is not required for exhaustion disorder to be diagnosed. However, this problem probably resulted from the international disagreement on the aetiology and diagnostic criteria of burnout<sup>16</sup>). For this reason, the lack of an official diagnosis of burnout limits the access to treatment, disability coverage, and workplace accommodations. Therefore, it would be advantageous that WHO in its 11th version of ICD and DSM defines specific diagnostic criteria for diagnosing burnout syndrome as a specific nosographic entity to guide policymakers for ascertain burnout syndrome as

an occupational disease<sup>13)</sup>.

Moreover, adding new items to the List of ODs can bring about a preventive effect by increasing both employer attention and employee caution, leading to the implementation of more preventive measures. It is the main reason why the ILO/WHO List of ODs (revised 2010) includes Mental and behavioural disorders. Nevertheless, more work is needed to create clear, strict and objective diagnostic and evaluation criteria, especially the evaluation of the working conditions, so that their misuse would be prevented.

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### References

- 1) Zhou H, Jin M, Ma Q (2015) Remedy for work stress: Impact and mechanism of the ethical leadership. *Cent Eur J Public Health* **23**, 176–80.
- 2) Takahashi K, Ishii Y (2013) Historical developments of administrative measures for occupational diseases in Japan. [http://www.ilo.org/wcmsp5/groups/public/---ed\\_protect/---protrav/---safework/documents/publication/wcms\\_234221.pdf](http://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---safework/documents/publication/wcms_234221.pdf). Assessed July 31, 2017.
- 3) Laštovková A, Nakládalová M, Fenclová Z, Urban P, Gad'ourek P, Lebeda T, Ehler E, Ridzoň P, Hlávková J, Boriková A, Kuijjer PP, Batora I, Scholz-Odermatt SM, Moldovan H, Godderis L, Leijon O, Campo G, Vaněčková M, Bonnetterre V, Stikova EJ, Pelclová D (2015) Low back pain disorders as occupational diseases in the Czech Republic and 22 European countries: comparison of occupational systems, related diagnoses and evaluation systems. *Cent Eur J Public Health* **23**, 244–51.
- 4) Hlávková J, Lebeda T, Tichý T, Gad'ourek P, Urban P, Nakládalová M, Laštovková A, Fenclová Z, Ridzoň P, Ehler E, Richter M, Pešáková L, Pelclová D (2016) Evaluation of Lumbar Spine Load by Computational method in order to acknowledge low-back disorders as occupational diseases. *Cent Eur J Public Health* **24**, 58–67.
- 5) Maslach C, Jackson SE (1981) The measurement of experienced burnout. *J Organ Behav* **2**, 99–113.
- 6) Kissling W, Mendel R, Förstl H (2014) The burn-out syndrome: prevalence, symptoms, differential diagnosis and treatment (in German). *Dtsch Med Wochenschr* **139**, 2587–96.
- 7) Netherlands Center for Occupational Diseases. Amsterdam: The Association; Background document to accompany registration guidelines E002, Stress related disorder. <http://www.occupationaldiseases.nl/datafiles/achtergronddocuments/Background-document-E002-Burnout.pdf>. Assessed July 31, 2017.
- 8) Ptacek R, Stefano GB, Kuzelova H, Raboch J, Harsa P, Kream RM (2013) Burnout syndrome in medical professionals: a manifestation of chronic stress with counterintuitive passive characteristics. *Neuro Endocrinol Lett* **34**, 259–64.
- 9) Shanafelt TD, Dyrbye LN, West CP (2017) Addressing physician burnout: The way forward. *JAMA* **317**, 901–2.
- 10) Carder M, Turner S, McNamee R, Agius R (2009) Work-related mental ill-health and 'stress' in the UK (2002–05). *Occup Med (Lond)* **59**, 539–44.
- 11) Karasek R, Brisson C, Kawakami N, Houtman I, Bongers P, Amick B (1998) The Job Content Questionnaire (JCQ): an instrument for internationally comparative assessments of psychosocial job characteristics. *J Occup Health Psychol* **3**, 322–55.
- 12) Siegrist J (1996) Adverse health effects of high-effort/low-reward conditions. *J Occup Health Psychol* **1**, 27–41.
- 13) Chirico F (2017) Is it time to consider Burnout Syndrome an occupational disease? *Br J Psychiatry*, eLetter July 17.
- 14) European Commission. Brussels: The Association; Flash Eurobarometer 398- Working conditions report. [http://ec.europa.eu/commfrontoffice/publicopinion/flash/fl\\_398\\_en.pdf](http://ec.europa.eu/commfrontoffice/publicopinion/flash/fl_398_en.pdf). Assessed July 31, 2017.
- 15) European Agency for Safety and Health at Work. [Internet]. Bilbao: The Association; Second European Survey of Enterprises on New and Emerging Risks (ESENER-2); [2016]. Available from: <https://osha.europa.eu/en/tools-and-publications/publications/second-european-survey-enterprises-new-and-emerging-risks-esener>. Assessed September 20, 2017.
- 16) Chirico F (2017) Burnout and depression are not the same thing. *Br J Psychiatry*, eLetter, Oct 02.