



**HTA-Report | Summary** 

# Differential diagnostic of the burnout syndrome

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# Health political background

According to estimations of company health insurance funds nine million Germans are affected by the so called burnout syndrome. Although there is no existing consistent definition of burnout and it is neither in ICD-10 nor in DSM-IV a self-containing diagnosis, burnout diagnoses are made by reverting to other diagnoses like depression. Burnout goes along with subjective suffering, health problems and a reduced work efficacy. Due to estimations, the work stress related costs are enormous. At the same time a considerable increase in prescriptions of psychotropic drugs and a rise of work incapacity due to psychological disorders can be registered in recent years. Against the background of these indications which point to a rising prevalence of psychiatric disorders, and the adjunctions with individual, social and national economic implications, the health political importance of the diagnostic and differential diagnostic of the burnout syndrome is explained. That is the reason why this issue is picked up in a HTA-report and dealt with systematically.

Scientific background

Up to now, burnout is scientifically often regarded as a work related syndrome which consists of the three dimensions emotional exhaustion, depersonalisation or cynicism and reduced professional efficacy. In fact no consistent valid definition exists. Burnout seems to be more or less a fuzzy set of many definitions. In the literature a multitude of burnout symptoms and theories and explanatory models can be found. Some different burnout measures exist but so far none of these measurements claims general validity and the exclusive right to exist. For differential diagnostic purposes, only symptom catalogues are available. Consequently, psychological and psychobiological mechanisms which underlie the burnout symptoms as well as the connections with other diseases are largely unexplained. Additionally, the psychosocial implications for persons who suffer from burnout and the consequences for others who have contact with the burnout victims (patients, colleagues etc.) are widely unknown.

# Medical research questions

- 1. How is burnout diagnosed? Which criteria are relevant for it?
- 2. Which disorders are relevant for differential diagnoses?
- 3. Are differential diagnoses being made?
- 4. How valid and reliable are the diagnostic instruments?

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Within the scope of the





# **Economic research question**

Which economic expense is caused by the differential diagnostic concerning burnout?

# Ethical and juridical questions

- 1. To what extent are burnout patients stigmatized?
- 2. Are there negative effects of burnout-victims on patients/clients?

#### **Methods**

Several key words are defined and a research strategy is developed. On behalf of the German Institute for Medical Documentation and Information (DIMDI), Art & Data Communication conducts an electronic search in March 25<sup>th</sup> 2009. 36 databases are included.

The time frame reaches from 2004 until 2009, including German and English literature. Four single searches for medical, health economic, juridical and ethical themes are conducted. Additionally, the authors look for related studies and literature.

The methodological quality of the studies is evaluated by check lists of the German Scientific Working Group Technology Assessment for Health Care (GSWG HTA).

# **Medical results**

25 studies of 826 hits fulfil the medical criteria for inclusion.

The key result of this report is that at present no standardized, general valid procedure to obtain a burnout diagnosis exists. So far, burnout is assessed by self-completion questionnaires, particularly the Maslach Burnout Inventory (MBI). Whether burnout can really be measured with the MBI, cannot be reliably answered. The dimension of emotional exhaustion appears to be a continuous feature. The significance of the dimensions depersonalisation und efficacy remains unclear as the studies achieve quite different results concerning this topic. The so far delivered cutoff points do not meet the demands for valid diagnostic purposes as the original generation process of these values does not correspond with the scientific test construction. In general, there are currently no valid diagnostic criteria available. Thus, it is in the discretion of the doctor to assess a burnout diagnosis and induce a treatment.

A connection between burnout and depression, burnout and the concept of prolonged exhaustion and between burnout and alexithymia is particularly discussed in the studies of this report. An intermittent relation between burnout and other diagnoses is possible. The cohesion of burnout and depression appears to be very important as burnout is potentially a developmental stage of a depressive disorder. Burnout is similarly linked with an increase of inflammatory biomarkers. The connection between burnout and other diseases remains unclear.

Within the prevalent burnout measurements (MBI, Shirom Melamed Burnout Questionnaire (SMBQ), Oldenburg Burnout Inventory (OLBI), Copenhagen Burnout Inventory (CBI), School Burnout Inventory (SBI)) there are no differential diagnostic screening tools integrated. By using the MBI, burnout simulators can be identified. The presently discussed burnout measurements



can mostly measure a three dimensional phenomenon, in so far they are modified regarding the work specific, linguistic and cultural concerns of the respective population.

## **Economic results**

None of the 102 economic hits conforms to the defined criteria for inclusion.

## Ethical and juridical results

One study out of 852 hits fulfils the inclusion criteria. Some medical explorations can also be used to report about ethical aspects.

Burnout victims clearly suffer from the symptoms of this syndrome. Burnout affects not only the concerned person but also persons in the surroundings of the affected person. One study shows for example that physicians with high burnout levels report more medical treatment errors than their colleagues who do not suffer from burnout. Simultaneously, a treatment error enhances the chance of burn out. No information can be gained about the stigmatization of burnout victims.

#### **Discussion**

The evidence of the studies is predominantly low. The studies have mostly a descriptive and explorative character. The sample assortment has mostly coincidently been generated and response rates are low. In most studies (85%) the MBI is used. This self-assessment questionnaire was created for scientific purposes but not as a diagnostic tool. The authors of the MBI do not deliver diagnostically valid cutoff points. Since there is no consistent valid definition of burnout up to now, it remains unclear if the MBI and other burnout measurements really assess burnout. Definitional obscurities are often neglected in the considered studies. Due to the results of this HTAreport, nearly every used burnout measurement (Athlete Burnout Questionnaire (ABQ), CBI, MBI, OLBI, SBI, SMBQ), is able to assess a three dimensional burnout phenomenon in every population if it is adequately modified. But this modification challenges the construct validity and the possibility of a valid generally accepted diagnostic and differential diagnostic. The connection of the three burnout dimensions and predominantly of the dimensions depersonalisation and efficacy remains unclear since the publications produce very differential results regarding that topic. Intermittent connections and the use of an inefficiency dimension instead of an efficacy dimension are discussed. Given that almost no longitudinal studies can be appraised, no chronological context referring to symptoms and other concepts can be reviewed. Objective data like medical parameters, sickness notes and judgements by third persons are extremely seldomly included in the research.

#### **Conclusions**

So far, no valid differential diagnostic instrument is available to assign burnout. Simultaneously this phenomenon seems to be of considerable prevalence and cost relevance (health insurances). The authors conclude, that (1) further research, particularly high-quality studies are needed to broaden the understanding of the burnout syndrome. Secondly (2) a systematic and widely accepted, internationally valid definition of the burnout syndrome has



to be found which is not delimited by the similarities of the current definitions. There is also a need for (3) finding a standardized and international valid burnout differential diagnostic tool, (4) developing a third party assessment tool for the diagnosis of burnout, and (5) researching the economic aspects and implications of burnout (for health insurances as well as for patients).