Burnout syndrome: a disease of modern societies?

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In the light of social change and a transformation in the work situation, interest in the problem of burnout has grown over the past decade. There is a conspicuous discrepancy, however, between what is regarded as certain knowledge and what is published opinion. To date, there is no generally accepted definition of burnout, or binding diagnostic criteria. According to the most common description at present, burnout syndrome is characterized by exhaustion, depersonalization, and reduced satisfaction in performance. Because of its etiopathogenesis, burnout is today mainly regarded as the result of chronic stress which has not been successfully dealt with. This paper gives an overview of the current definition for burnout syndrome and states possible contemporary hypotheses for its etiology. By examining diagnostic criteria and possible therapies, methods of prevention are discussed. There is an urgent need for further investigations to determine whether burnout syndrome is a work-related disease.

Key words: Burnout; disability management; person–environment misfit; stress at the workplace; work-related diseases.

INTRODUCTION

'... I'm under a lot of stress, ... completely burned out ..., I'd like to pack it in ..., my battery is flat ...!'. Who has not heard similar comments when people are talking about their work? Are such statements, which are as much part of a modern service society as the mobile phone and computer, just everyday phrases, excuses for a lack of performance, or are they symptoms of a disease which can be summarized by the term 'burnout syndrome'?

The term 'burnout' was coined in the USA a good 25 years ago. The psychoanalyst Freudenberger, for example, published one of the first scientific descriptions of the burnout syndrome as psychiatric and physical breakdown. In 1981, Maslach introduced a further-reaching definition and an instrument for measuring burnout which is still the most frequently used today, the Maslach Burnout Inventory.

In industrialized countries, public interest in the problem of burnout has increased over the last few years. The subject has enjoyed a boom in the media, but there is a great discrepancy between published opinion and what is regarded as certain knowledge. In the last decades burnout was a subject of scientific research mainly among psychologists and sociologists. Major contributions for identifying and classifying burnout syndrome have been published by psychologists.

Recently, the subject has caught the attention of doctors of social and occupational medicine. The central problems for science and practice result from the fact that there is no generally accepted definition of burnout. The separation from other health disorders is difficult and potential causal factors are still the subject of much controversy. Nevertheless, burnout syndrome is an important problem in modern working environments and is addressed in this paper from the point of view of occupational medicine. By considering the important work published by psychologists an interdisciplinary approach would facilitate the understanding of burnout syndrome in the field of occupational health.

DEFINITION: THE CURRENT SCIENTIFIC CONSENSUS OF OPINION

According to one of the first more extensive characterizations by Maslach and Jackson, burnout is the result of chronic stress (at the workplace) which has not been successfully dealt with. It is characterized by exhaustion and depersonalization (nativism/cynicism) and is
Burnout syndrome is found predominantly in caring and social professions (e.g. social workers, teachers, nurses, doctors, dentists). A later definition based on the MBI and which is in widespread use today, describes exhaustion, depersonalization, and reduced satisfaction in performance as the decisive elements of burnout syndrome. In the 10th revision of the International Classification of Diseases (ICD 10) the term 'burnout' was described under Z.73.0 as 'Burnout – state of total exhaustion'. In addition to the question of a uniform, generally accepted definition, etiological and pathogenetic aspects are the subjects of much controversy. It is generally believed today that ‘negative stress’ (distress) probably represents a key phenomenon in the aetiopathogenesis of burnout. Other important pathogenetic factors are thought to be ‘being swamped by daily routine’ and ‘disappointed expectations’. Most of the theories and models for the development of burnout syndrome are published in the psychological, psychosomatic and psychiatric literature. This paper will focus on three main models from a social–medical point of view (Box 1).

**Box 1. Burnout syndrome: important aetiopathogenetic concepts from the social–medical point of view**

A. Result of stress that has not been successfully dealt with. Emphasis on strain and society – the ‘macrolevel’.

B. Person–environment–misfit. Emphasis on interaction between society and the individual – the ‘mesolevel’.

C. Discrepancy between expectations and reality. Emphasis on strain and the individual – the ‘microlevel’.

Contrary to earlier observations regarding the epidemiology of burnout, it has been noted that the syndrome is not associated with certain workplaces, circumstances, sex or age. The occurrence of burnout syndrome has been described in diverse occupations, e.g. in social workers, advisors, teachers, nurses, laboratory workers, speech therapists, ergo therapists, doctors and dentists, police and prison officers, stewardesses, managers, and even in housewives, students and unemployed people. Psychological explanations assume that in most of these occupations the combination of caring, advising, healing, or protecting, coupled with the demands of showing that one cares, is of central importance.

The prevalence rates published in the literature for individual occupations must be regarded sceptically, as the definitions and diagnostic criteria used are not uniform. Depending on the evaluation instruments and classification systems used, an incidence of burnout in teachers of up to 30% has been given. For doctors and dentists more recent studies give prevalence rates of up to 10%.

**Important aspects in the aetiopathogenesis of burnout**

Despite numerous new discoveries regarding the development of burnout syndrome, many questions still remain unanswered. Is burnout merely high-level stress at the workplace or the result of the complex interaction of social factors (circumstances) and individual factors (behaviour)? Without a doubt, the changes in society and work have led not only to changed demands, but also to a generally undisputed increase in heterogenic psychosocial and psychosomatic stress. Occupational psycho-mental/psycho-social stress factors are illustrated in Fig. 1 and include pressure of time, overtime and shift...
work, as well as mobbing, economic pressures, and multiple tasks such as job, family and leisure activities. In addition, the importance of personal competence, particularly in the so-called tertiary sector, is continually increasing (e.g. communicability, being able to work in a team, frustration tolerance, service orientation, flexibility).

According to the job-strain model, which has been established for many years in occupational medicine as a stress-strain concept, a high level of strain can result from the cumulation of psycho-mental/psycho-social stress and a lower level of stress tolerance, which in this context is to be regarded as 'negative stress'. When 'negative stress' becomes chronic and is not dealt with adequately it leads to adverse effects on the health. Not only do psychological and social factors play a role, but so also do biological and biochemical factors. Above all, hormonal and endocrinological changes, particularly a permanent increase in the cortisol level and disturbances in the hypothalamic-pituitary-adrenal control system, are under discussion.

Recent research suggests that such influences are possibly not only relevant for the development of burnout syndrome, but also in the pathogenesis of occupation-related psychiatric/psychosomatic diseases. According to the 'person-environment-misfit' concept, an imbalance between psycho-mental/psycho-social stress and individual stress tolerance is decisive for the development of burnout syndrome. The risk of burnout is influenced not only by the extent of the stress factors and deficits in personal resources, but above all by 'social support' systems and 'coping' strategies. In addition to primary personality structure (e.g. idealism, perfectionism, timidity, insecurity, emotional instability), negative factors which influence the individual stress tolerance are inadequate or lacking strategies to deal with stress, disappointed expectations/ negative experiences, and lifestyle (e.g. inadequate support due to a lack of social relationships/partnerships).

**SYMPTOMS**

The symptoms of burnout patients are usually multidimensional with several psychiatric, psychosomatic, somatic and social disorders. The main psychiatric symptoms are, in addition to chronic fatigue and continuous exhaustion, above all described as 'mental dysfunction'. This includes concentration and memory disturbances (a lack of precision, disorganization), a lack of drive and personality changes (a lack of interest, cynicism, aggressiveness). Severe disturbances are anxiety and depressive disturbances, which can culminate in suicide. Also the development of addictions (e.g. alcohol, medicines) has been associated with burnout. Common somatic symptoms are headaches, gastro-intestinal disorders (irritable stomach, diarrhoea), or cardio-vascular disturbances such as tachycardia, arrhythmia, and hypertonia. Figure 2 illustrates the dynamic process of developing burnout syndrome.

In addition, depending on the duration and severity of the burnout, there are often further negative social consequences. These include, from the point of view of the individual, withdrawal at the workplace (so called 'inner resignation') or effects on private life (partner/social isolation). From the perspective of society, there is an increased risk of repeated or long periods of absence from work and early invalidity.

**DIAGNOSIS, DIFFERENTIAL DIAGNOSIS, AND THERAPY**

In view of the mainly unspecific symptoms, when it comes to the diagnosis of burnout syndrome a differentiated, all-encompassing approach is necessary. Good interdisciplinary co-operation and communication between the parties involved in the diagnostic process (patient, GP, specialist, works physician, psychologist, other disciplines) is just as essential as medical expertise. Box 2 shows a diagnostic approach for diagnosing burnout syndrome from social and occupational medicine points of view.

Valid objectification and quantification of health impairments and/or functional disturbances must be carried out. This requires medical expertise and should not be carried out by non-medical personnel, even if they are very enthusiastic about the subject. In addition to a general anamnesis to evaluate previous and accompanying illnesses, a problem-oriented social and occupational anamnesis in particular should be carried out. This
serves both to identify potential stress factors and to evaluate possible negative social consequences in the person's private life and occupation. In addition, consumption of alcohol or drugs must be documented, and if necessary quantified using biological monitoring. The subjective symptoms should be described in as much detail as possible, noting any changes over time. A physical examination (internal status) is also essential, and should be supplemented by results for important routine laboratory parameters (e.g. blood count, liver function tests, electrolytes, kidney function) if this information is not already available. In addition, in individual cases, 'stress-biomonitoring' (e.g. cortisol level/daily profiles) and special immunological and/or endocrinological analyses (e.g. cellular/humeral immune system, hypothalamic–pituitary–adrenal control system) must be considered. Such investigations can, however, only be carried out by specialized centres.

An early psychosomatic/psychiatric consultation and the carrying out of psychometric test procedures are recommended. The Maslach Burnout Inventory, introduced in 1981, is widely used in the diagnosis of burnout. It is a self-assessment questionnaire consisting of 22 items to evaluate emotional exhaustion, depersonalization and dissatisfaction with performance. In individual cases further psychometric investigations, also to evaluate competing influences, may be necessary. It must be remembered, however, that the results of such test procedures are only 'pieces in the diagnostic mosaic' and cannot replace qualified psychosomatic/psychiatric investigation. Therefore an interdisciplinary team should be required in the diagnosis of burnout syndrome.

Differential diagnosis must be used to first separate primary psychiatric disorders, i.e. those independent of exogenous factors, and burnout. Furthermore, chronic somatic diseases, such as chronic infections (e.g. viral hepatitis), endocrinopathy (e.g. thyroid disorders, Addison’s disease), autoimmune diseases, tumours or the so-called chronic fatigue syndrome (CFS) must not be forgotten. Differentiation between burnout and CFS can, however, be rendered impossible by similar symptoms and a comparable course of the disease.

In practice, the diagnostic assignment to burnout syndrome of the mainly unspecific symptoms described above is problematic, even with a differentiated approach. It is very difficult to find temporal and causal relationships to previous psycho-mental/psycho-social stress when, as is often the case, the illness has existed for a long time; there are multiple symptoms and many different influencing factors. Objectification or quantification of occupational stress factors is almost impossible for a GP or specialist, as they usually do not have sufficient information or detailed knowledge of the workplace situation. But even with optimum co-operation between the patient’s doctors, occupational physicians and psychologists there are still general methodological problems in the evaluation of negative stress at the workplace. In addition, it must be noted that occupational and non-occupational stress factors are often interlinked or cannot be separated from each other as regards their biological consequences. Therefore, not only the validity of the diagnosis ‘burnout syndrome’, but also the decisive meaning of a harmful work situation still remains at the centre of criticism.

To date there has been no scientific evaluation of the suggestions published in the literature concerning the therapy of burnout. In addition, there is often no clear division between treatment and preventive measures. The procedures used and their dependence on the type and severity of the symptoms are listed in Box 3.

## PREVENTION

Measures to prevent burnout can be differentiated according to the preventive approach and levels of prevention. Preventive approaches to be considered are both modifications in the working environment (prevention of circumstances) and also improvements in the individual’s ability to cope with stress (behavioural preventive measures). According to the WHO the levels

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**BOX 2. Burnout syndrome: the diagnostic, all-encompassing, interdisciplinary approach**

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Purpose</th>
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<tbody>
<tr>
<td>Medical history</td>
<td>Previous and current diseases</td>
</tr>
<tr>
<td>Social and occupational history</td>
<td>Identification of potential stress factors and possible social consequences</td>
</tr>
<tr>
<td>Drug history</td>
<td>Smoking, consumption of alcohol and drugs</td>
</tr>
<tr>
<td>Symptoms</td>
<td>Course and temporal relationship</td>
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<tr>
<td>Physical examination</td>
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<tr>
<td>Psychosomatic/psychiatric status</td>
<td>Maslach Burnout Inventory</td>
</tr>
<tr>
<td>Psychometric tests</td>
<td>'Stress biomonitoring'; hypothalamic–pituitary–adrenal control system</td>
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<tr>
<td>Special laboratory tests</td>
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</tbody>
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**BOX 3. Burnout syndrome: therapy suggestions**

- Pharmacological treatment according to symptoms, e.g. antidepressants, beta-blockers
- Psychotherapy, such as relaxation techniques, improvement of self-esteem, concepts for dealing with stress
- Reorganization of the work environment, such as the organization of work and the work structure, and the introduction of time management
- Change of work environment, combined with rehabilitation and retraining
of prevention can be divided into primary preventive measures (avoidance/removal of factors that make the patient ill), secondary measures (early recognition—intervention of manifest disease), and tertiary measures (coping with the consequences of disease—rehabilitation and relapse prophylaxis). The concepts for behavioural preventive measures presented in the literature focus on primary prevention and are the 'domain' of psychology. Some of the measures are:

- improvements in dealing with stress,
- the learning of relaxation techniques,
- the delegation of responsibility (learning to say 'no'),
- hobbies (sport, culture, nature),
- trying to uphold stable partnerships/social relationships,
- frustration prophylaxis (reducing false expectations).

In addition, some authors regard religion and spirituality as having a potentially preventive function.

The strategies discussed at present for preventing the circumstances in which burnout arises are a combination of primary and secondary prevention. It can be differentiated between activities where the focus is on work organization and management, and suggestions aimed primarily at (groups of) persons. Workplace-related measures are:

- the creation/preservation of a 'healthy working environment' (e.g. time management, communication style of leadership),
- the recognition of performance (praise, appreciation, money),
- the training of managers ('key role' of the boss in burnout prevention).

Person-oriented strategies are:

- the carrying out of 'suitability tests' before job training,
- specific programmes accompanying the work of persons from risk groups (e.g. Balint groups for teachers and doctors),
- regular occupational—medical/psychological monitoring (e.g. establishment of a special 'job-stress' check-up for the early recognition of burnout).

Suitability tests are not likely to be favourably received from a socio-political point of view. First of all they do not allow freedom of choice when it comes to occupation, even if, depending on their type and content, they could be useful from a medical point of view (it is known from practice that persons with the personalities susceptible to developing burnout choose the occupations with a higher risk of developing burnout).

Of particular interest is the suggestion of regular occupational—medical/psychological monitoring of occupational groups at risk of developing burnout. The occupational—medical management of persons at risk from stress, and burnout patients, would therefore gain a standardized framework. In addition, a general increase in knowledge could be expected, based on well-founded observations.

In times of limited resources, acceptance and feasibility also play an important role in the development and implementation of preventive strategies. In addition, it should not be forgotten that effective and efficient prevention requires adequate knowledge of the aetiology-pathogenesis. The closing of gaps in our knowledge would also be a great improvement for the prevention of burnout.

CONCLUSIONS: PROSPECTS

As a result of the gaps in our knowledge, there is a great temptation to dismiss burnout as merely a 'fashionable trend' or an 'invention of the media'. In addition, in the era of molecular medicine, it may seem more sensible to some people to leave psychosocial health risks to psychologists, sociologists or 'health scientists'. It should be warned that this kind of thinking takes away an important dimension from medicine (the social dimension). Without a doubt the multiplicity of the burnout phenomenon requires intensive interdisciplinary cooperation with the simultaneous preservation of its unity. Medical expertise is essential here. Moreover, burnout, as the result of the complex interaction of work/society and the individual, calls for social—medical and occupational—medical competence, and also serves to illustrate the close relationship of these two disciplines. It must also be borne in mind that the numerous possible social consequences of burnout (e.g. repeated absence from work, early invalidity) are also of 'classical' social—medical and occupational—medical content. Social—medical and occupational—medical 'know-how' should not, however, be limited to the analysis of deficits, but should lead to the drawing up of constructive, scientifically based solutions. The first priority is to reach a consensus regarding the use of uniform definitions and diagnostic criteria. Only in this way can valid statements be made on prevalence rates in certain occupational groups, and thus on the extent of the risk. Furthermore, it is important that epidemiological studies are planned sensibly to reveal potential causal relationships with psycho-social/psycho-mental stress at work. Merely asking for subjective evaluations using a questionnaire does not lead any further. Methodologically valid prospective longitudinal studies of an interdisciplinary and comprehensive nature, which evaluate both subjective and objective data, are urgently required. In addition, research to reveal the decisive pathogenetic principles should, of course, not be neglected. Above all, further research into the biological, biochemical and molecular effects of chronic exposure to stress (e.g. endocrinological investigations of the hypothalamic—pituitary—adrenal control system, further development of 'stress-biomonitoring', psycho-immunology) is needed.

The gaps in our knowledge should not excuse us from trying to carry out in practice preventive measures and...
medical care to the best of our abilities. Burnout patients need competent help and should feel that their complaints are taken seriously. Even in times of limited resources, comprehensive clarification of the complaints, while avoiding the too early fixation with certain causal relationships, is important.

On the threshold to the 21st century burnout is a challenge to both research and practice, and not only because doctors can potentially be affected. Specialists of social medicine and occupational medicine should not miss the chance of acting in interdisciplinary teams with psychologists to investigate together the problem of burnout syndrome.

REFERENCES