Sabine Bährer-Kohler *Editor*

Burnout for Experts

Prevention in the Context of Living and Working

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Preface

Addressing the subject of burnout, this book contains an introductory chapter followed by an in-depth survey of the international context, including the cost of illness (Chapter 2), and some aspects of the history of burnout (Chapter 3).

Among other things, Chapter 4 explains the various phase models in detail, while Chapter 5 describes common elements of and differences between depression and burnout, including their respective medical treatments. Chapter 6 presents physical and mental problems associated with burnout, containing results of Brazilian studies.

There are internal and external factors that are related to burnout. These diverse factors, which may turn into risk factors, are described at length in Chapters 7, 8, 9 and 10. To survey individual factors, as well as burnout per se, the appropriate tools are required, some of which are explained in detail in Chapter 11.

In the editor's view, describing these factors is essential for surveying burnout, as well as for its treatment, and especially for its prevention. The relationship between prevention and communication is explained in Chapter 12.

In dealing with burnout, active coping is as important as intervention, which may be individual- or organization-related, or a combination and an interaction of the two. These subjects are discussed in Chapters 13 and 14.

Chapter 15 presents conclusions, emphasizing the importance of health promotion. By the end of the book it is clear that burnout is a near-global, dynamic issue that has numerous facets and is not always presented uniformly, not even in this book.

There are different explanation algorithms, influential determinants, survey tools, results, treatment methods, and, apparently, different tasks for the future, all against the background of the course each case takes in its overall context.

I am grateful to the publishers and especially the authors for their valuable contributions and their willingness to cooperate.

Once again, I should like to thank my family for their invaluable understanding and their near-infinite patience with me. Without your support and your love this book would never have appeared in its present form.

Basel, Switzerland — Sabine Bährer-Kohler

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Chapter 1
Introduction

Sabine Bährer-Kohler

1.1 Aspects of Burnout

Social factors in general and socio-economic factors in particular are important in the context of mental health (Bährer-Kohler 2011a). As the World Health Organization (WHO) documented with regard to mental health aspects in 2004, the clearest evidence is associated with indicators of poverty, including low levels of education, and in some studies with poor housing and insufficient income (WHO 2004). Income may be generated by work, which has a demonstrable effect on health. Burnout has often been documented in the context of work and specific occupation groups (Innstrand et al. 2011), and it has often been associated with stress and/or chronic stress (Gusy 1995; Weber and Jaekel-Reinhard 2000). At the same time, burnout has been analyzed in connection with partners (Ekberg et al. 1986), parental burnout (Lindström et al. 2011, 2010), and situations in which dementia patients, for example, require care and support (Valente et al. 2011; Lilly et al. 2011). The symptomatology of burnout that emerges is extraordinarily diverse.

Burnout can be described as a condition based on the protracted depletion of an individual's energies (Shirom 1989), characterized by emotional exhaustion, reduced personal accomplishment, and feelings of insufficiency and depersonalization (Melamed et al. 2006; Houkes et al. 2011). Burnout features certain facets and other characteristics that are related to the individual, always context- and/or organization-related and influenced by living conditions. It may be the personal response, with emotional core elements, of an individual to persistent stress, displaying psychic and somatic symptoms (Melamed et al. 2006; Ahola et al. 2009), even though the immediate causes may not be clear (Korczak et al. 2010).

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To date, there has been no conclusive scientific proof of what causes burnout—one of the reasons being that burnout is described as a dynamic process (Schaufeli and Enzman 1998).

There is no unified international definition of burnout (Korczak et al. 2010), neither in the International Statistical Classification of Diseases and Related Health Problems, 10th Revision (ICD-10), nor in the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV). The ICD-10 merely documents *problems associated with difficulties in coping with life* under item Z 73. In Sweden, on the other hand, burnout has been a legitimate diagnosis since 1997 (Friberg 2009). Many questions remain, such as: Is burnout a process in which the burnout syndrome might form a building block of depression? Starting out from chronic stress, burnout might thus develop into depressive symptoms and/or a clinical depression (von Känel 2008a, b) and/or a self-reported depression with many symptoms (Peterson et al. 2008). Alternatively, it may be merely an individual adjustment disorder.

At the onset of the condition, people with burnout are often distinguished by high motivation, high commitment, and outstanding performance and ambition, aspects that are also described in the various phase models (Freudenberger and North 1992; Lauderdale 1982; Burisch 2006).

The number of phases may range from three (e.g., in the concept of Lauderdale 1982) to 12 (in the concept of Freudenberger and North 1992), and the sequence of phases may vary. According to Freudenberger and North, burnout starts in phase 1 with a feeling of having to prove oneself, proceeding via enhanced commitment, the neglect of one's own needs, and the displacement of conflicts to stage 7, personal withdrawal, that may end in burnout in stage 12. According to Burisch (2006), burnout begins with an excessive deployment of energy and experiences of exhaustion, and ends, in phase 7, in profound despair, often marked by a negative attitude toward life, hopelessness, and a feeling of futility.

Other potential symptoms include tiredness, sleep disturbances (Ekstedt et al. 2009, 2006), irritability, cynicism, and lack of concentration. Individual characteristics, such as age, gender, sector, occupation, employment status, and environmental and societal factors interact with stress and/or coping with stress at work (European Agency for Safety and Health at Work 2009, p. 10). Unmarried men and divorced women have been described to be potential at-risk groups (Soares et al. 2007; Ahola et al. 2006), and women (Bakker et al. 2002; Roth et al. 2011), particularly those with multiple functions (Norlund et al. 2010; Van Emmerik and Euwema 2001; Innstrand et al. 2011), have been the object of a broad scientific debate (Ahola et al. 2006, 2008; Norlund et al. 2010; Houkes et al. 2011). The current publication by Houkes et al. documents that, while burnout affects both genders, it is more likely to be triggered by depersonalization in men and by emotional exhaustion in women. Others again found that men suffered more emotional exhaustion and a higher degree of depersonalization than women (Van Horn et al. 1997). There is no such thing as a typical burnout personality (Burisch 2006). Nevertheless, burnout can be influenced by factors like intrinsic motivation (Ten Brummelhuis et al. 2011) or neuroticism (McCrae and Costa 1987). Neuroticism refers to characteristics such as anxiety, lack of self-respect, susceptibility to guilt, and low self-esteem.

Among other institutions, the European Agency for Safety and Health at Work (2009) emphasizes the possibility of burnout being linked to stress at work, e.g., in the context of low support for those affected.

The burnout process may be reinforced by

- High work load and complexity (Leiter et al. 2009; Ten Brummelhuis et al. 2011)
- Time pressure (Kaschka et al. 2011)
- Job uncertainty (Msaouel et al. 2010)
- Work conflicts, problems of leadership and collaboration (Kaschka et al. 2011)
- Bullying (Kaschka et al. 2011)
- Lack of control (Cerimele 2011)
- Demands for and/or lack of flexibility (Weber and Jaekel-Reinhard 2000, p. 513)
- Lack of autonomy (Nahrgang et al. 2011)
- Reduced job resources (Ten Brummelhuis et al. 2011)
- Poor teamwork (Kaschka et al. 2011)
- A disorganized work environment (Cerimele 2011)
- Low job satisfaction (De Oliveira et al. 2011)

Work-related stress is one of the biggest health, mental health, and safety challenges. Various studies document the high prevalence of the professional stress syndrome. It has been shown that, in Europe alone, one in four workers is affected by it, an average of 22% in 2005 (European Agency for Safety and Health at Work 2011).

At the same time, burnout is also influenced by societal aspects (Weber and Jaekel-Reinhard 2000, p. 513), such as individualization factors (Fischer and Boer 2011), the loss of traditional support systems, changing values, anonymity, etc.

1.2 Models for Coping with Stress and the Development of Burnout

While some models concentrate on the individual, others focus on outside influences such as occupational, organizational, and societal factors (Cooper et al. 2001).

Stress is a nonspecific reaction of the body (Selye 1936) and, as Richard S. Lazarus (1966) explains in his transactional theory of stress, it is essentially a cognitive phenomenon. This theory assumes that a person experiences a situation, perceiving and evaluating it, and searching for solutions or the ability to respond (Ladegard 2011).

Another concept that particularly addresses stress in a work situation is the requirement control model of Karasek & Theorell. It explains that the relationship among requirements at work, controllability (see uncontrollable stress, Hüther 1997), reward, and social support could be imbalanced (Karasek and Theorell 1990).

At the international level, three theoretical models have been repeatedly used to explain burnout. The first is that conceived by Golembiewski, Munzenrider, and Stevenson; the second is the process model by Leiter and Maslach, and the

third is the model by Lee and Ashforth. In the model of Golembiewski et al. (1986), burnout begins with depersonalization, while Leiter and Maslach (1988) describe burnout as beginning with emotional exhaustion that can then lead to depersonalization and subsequently to reduced personal accomplishment. Like Leiter and Maslach, Lee and Ashforth (1996) show that, while emotional exhaustion forms the basis of further depersonalization, reduced personal accomplishment develops independently of depersonalization, directly emanating from emotional exhaustion. However, these models have also been analyzed critically (Taris et al. 2005; Houkes et al. 2011).

1.3 Biological Measurability of Stress

Recently, various studies have been published on the biological measurability of stress, which, of course, relates to burnout (Kudielka et al. 2006; Tops et al. 2007). One objective is to discover whether there are different biological burnout types. Danhof-Pont et al. (2011) analyzed 31 studies on 38 biomarkers involved in the hypothalamus–pituitary–adrenal axis, the autonomic nervous system, the immune system, metabolic processes, the antioxidant defense, hormones, and sleep, but were unable to find any potential biomarkers for burnout. One of the reasons for this was that the studies were difficult to compare. Henry's stress model, on the other hand, offers some clues as to the biological traces that might be left behind by anger, fear, and depression (Henry 1992).

1.4 Burnout Is Becoming Increasingly Prominent in the Literature

PubMed (US National Library of Medicine) listed more than 7,200 scientific articles on the subject of burnout in November 2011. The first dates back to 1973, and one of the most recent, by Bagaajav et al., on burnout and job stress among Mongolian doctors and nurses, appeared in August 2011. Although a few meta-analyses on the subject, including those by Fischer and Boer (2011) and Melchior et al. (1997) have been published, there are still no high-quality control studies on the burnout syndrome in the literature (Kaschka et al. 2011). For around 35 years, the subject increasingly attracted the attention of researchers, practitioners, and the general public almost all over the world (Schaufeli et al. 2008). It is probable, however, that burnout has existed at all times and in all cultures (Kaschka et al. 2011). In 1974, Freudenberger used the term to describe emotional depletion, loss of motivation, and reduced commitment in individuals (Schaufeli et al. 2008, p. 205), and as early as 1981, Maslach et al. judged burnout to be a highly diverse multi-dimensional construct (Maslach and Jackson 1981).

In the literature, there are various data relating to the prevalence of burnout:

- 2.4% prevalence of severe burnout in the Finnish working population (Ahola et al. 2006)
- 13% prevalence of high-level burnout in the general population of northern Sweden (Norlund et al. 2010)
- 16% of the caregiver burden is related to burnout, dementia-related factors being the most significant predictors (Kim et al. 2011a)
- 22.3% with psychiatric morbidity and 27.5% with emotional exhaustion in the medical profession (Grassi and Magnani 2000)
- 34% overall burnout prevalence among internal medicine interns (Ripp et al. 2010)
- 38% of pediatric oncologists have high levels of burnout (Roth et al. 2011)
- 46.5% high-level burnout (Embriaco et al. 2007) among physicians working in intensive care units
- 54% of mental health workers (mental health nurses and occupational therapists) with high levels of burnout (Oddie and Ousley 2007)
- 72% of pediatric oncologists with moderate levels of burnout (Roth et al. 2011)

Further information has been presented by, for example, Gencay and Gencay (2011) on judo coaches, Mazurkiewicz et al. (2011) on medical students, Kim et al. (2011b) on social workers, Sehlen et al. (2009) on nurses and physicians, and Wu et al. (2011) on female nurses and female physicians.

1.5 Survey Tools

A variety of survey tools have been used in inventories, such as the Maslach Burnout Inventory (MBI; Maslach et al. 1996), which comprises 22 items addressing three dimensions: emotional exhaustion, depersonalization, and reduced accomplishment. Another tool is the Shirom Melamed Burnout Questionnaire (SMBQ; Shirom 1989), which similarly comprises 22 items. Other tools include the Copenhagen Burnout Inventory (Kristensen et al. 2005), the Oldenburg Burnout Inventory (Demerouti and Bakker 2008), and the Spanish Burnout Inventory (Gil-Monte and Olivares Faúndez 2011).

1.6 Burnout Costs Money

Burnout is costly for individuals, as well as for employers and societies.

Studies conducted within the EU indicate that between 50 and 60% of absence from work is related to stress in the workplace (Cox et al. 2000).

In 2002, the annual economic costs of work-related stress amounted to approximately EUR 20,000 million in the EU 15 (15 countries that were members of the European

Union at that time) (European Agency for Safety and Health at Work 2011). In France, for example, between 220,500 and 335,000 employees were affected by illnesses related to stress at work in 2000, a number equivalent to 1–1.4% of the entire workforce. Depending on the inclusion criteria, the estimated cost amounted to EUR 830–1,656 million (INRS 2000). In Germany, the cost of psychological disorders, including depression, amounted to around EUR 3,000 million in 2001 (Badura et al. 2004).

Certainly, such calculations should not omit the indirect costs of work-related stress; thus, the study by Kessler et al. (2008) focuses on one source of indirect costs, loss of earnings. Based on the American Comorbidity Survey Replication (NCS-R), which covers 5,000 individuals, the analysis documents other additional costs amounting to billions of dollars.

1.7 What Can Be Done?

1.7.1 Options for Individuals

- Self-observation (Kanfer et al. 2000)
- Self-care (Kravits et al. 2010)
- Self-regulation and action regulation (Cameron and Leventhal 2003; Raabe et al. 2007; Forgas et al. 2009; Baumeister and Vohs 2004)
- Training one's own perceptivity in health matters (Krasner et al. 2009)
- Prevention (Peterson et al. 2008; Caplan 1964; Leka et al. 2004, p. 15; Roth et al. 2011)
- Exercise/leisure activities (Jonsdottir et al. 2010)
- Promotion of resources (Lee and Ashforth 1996; Bakker et al. 2005)
- Promotion of self-esteem (Pierce and Gardner 2004)
- Promotion of self-efficacy (Doménech Betoret and Gómez Artiga 2010)
- Target reflection and motivation promotion (Gray 2006; Nahrgang et al. 2011)
- Maintenance and enhancement of social networks (Van Dierendonck et al. 1998; Gray-Stanley and Muramatsu 2011)
- Emotional intelligence (Weng et al. 2011)
- Dealing with role conflicts (Hsu et al. 2010)
- Promoting the ability to deal with conflicts (Wright 2011; Ohue et al. 2011)
- Interpersonal skill development (Taormina and Law 2000)
- Personal stress management (Taormina and Law 2000)
- Short interventions (Bährer-Kohler 2011b) with refresher sessions
- Communication training (Emold et al. 2011; Kim and Lee 2009)
- Coping (Lazarus 1966)
- Coping skills for women and problem-solving skills for men (Sasaki et al. 2009)
- Balance between work and family life (Ladegard 2011)

1.7.2 Options for Employers, Organizations, and Society

- Appreciation of employees and workers
- Identification of early signs of burnout (Maslach and Leiter 2008)
- Creation of an organizational culture that, among other things, reflects value systems and beliefs (Leka et al. 2004, p. 23)
- Raising awareness and education (Leka and Cox 2008)
- Improved corporate communications and successful communications (Zerfass 2007)
- Clearly structured tasks and responsibilities (Pedrini et al. 2009)
- Structured administrative support (Paisley and Powell 2007)
- Promotion of job resources, such as knowledge and autonomy (Nahrgang et al. 2011), as opposed to job demands (Bakker et al. 2004, 2005)
- Employee participation in decision-making (Gray-Stanley and Muramatsu 2011)
- Decision-making options for employees (Bond and Bunce 2001)
- Reconciliation of family and working life (Noor and Zainuddin 2011; Avgar et al. 2011)
- Prevention of bullying (Sá and Fleming 2008)
- Promotion of stress management resources and individual skills (Gray-Stanley and Muramatsu 2011; Leka and Cox 2008)
- Interventions (Awa et al. 2010; Leka and Cox 2008)
- Ongoing preventive interventions (Selmanovic et al. 2011)
- Organizational level interventions (Bergerman et al. 2009)
- Workplace coaching (Ladegard 2011)
- Supervisory support (Paisley and Powell 2007)
- Support, particularly in the event of organizational changes (Fugate et al. 2008)
- Short interventions (Bährer-Kohler 2011b; Salyers et al. 2011; Issaksson Ro et al. 2010)
- Co-worker support (Shimazu et al. 2005; Taormina and Law 2000)

Around 80% of the person-directed and organization-directed intervention programs analyzed ultimately caused the burnout syndrome to weaken (Awa et al. 2010). In this context, the effectiveness, especially of cognitive behavioral interventions, has been documented (Van der Klink et al. 2001). In a study with a 35-year follow-up, Hakanen et al. (2011) found that various individual, socioeconomic, and work-related resources accumulated over a lifetime can protect employees from job burnout.

The burnout syndrome should always be surveyed and analyzed within the comprehensive context of the person concerned, making use of interdisciplinary professional support.

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Chapter 2
Burnout Syndrome in an International Setting

Francisco Javier Carod-Artal and Carolina Vázquez-Cabrera

2.1 Introduction

Burnout is a global concern and work-related stress has the potential to negatively affect the individual's psychological and physical health, as well as an organization's effectiveness. Therefore, it is recognized worldwide as a major challenge to workers' health and the functioning of their organizations. In the last decade, several epidemiological studies have found a high prevalence of the professional stress syndrome of burnout in western and developing countries (Maslach et al. 2001). Burnout is usually assessed in an occupational setting and most occupational groups, white-collar (civil servants), blue-collar (manual workers) and the "helping" professions (health care workers, caregivers, and teachers) may be affected (Felton 1998; Valente et al. 2011). Nevertheless, burnout syndrome occurs mainly among professionals whose work involves constant demands and intense interactions with people who have physical and emotional needs.

The term "burnout" was first used by Herbert Freudenberger (1974) in the mid-1970s and since then several theoretical models have been developed. Burnout syndrome is associated with daily chronic stress rather than with occasional events, and has been described as an inability to cope with emotional stress at work (Felton 1998). Individual and organizational factors are involved in burnout, and there is an exchange between these two parts. An individual's characteristics, such as personality, values, goals, age, gender, level of education, and family situation may interact with

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Table 2.1 Some risk factors for burnout syndrome

Negative job characteristics
Workload: overwork and heavy workload, boredom
Work conflicts
Diminished resources
Lack of input or feedback
Job insecurity
Effort–reward imbalance
Length of training and delayed gratification
Occupational factors
Step hierarchy
Understaffing
High demands for employees
Number of years in current profession and total number of years
Organizational factors
Continuing rapid organizational changes
Demographic variables
Younger adults
Unmarried people/women caring for children
Personality traits
Low hardiness
Poor self-esteem
Job attitudes
Unrealistically high expectations
Financial issues (salary)

environmental and work risk factors and either exacerbate or act as a buffer against their effects (Cassitto et al. 2003). A list of some risk factors associated with burnout syndrome is shown in Table 2.1.

Organic complaints (headaches, insomnia and other sleep disorders, eating problems, tiredness, irritability), emotional instability, and rigidity in social relationships are some nonspecific symptoms associated with burnout syndrome (Embriaco et al. 2007). Burnout syndrome has also been associated with poor health, including hypertension, alcoholism, and myocardial infarction (Shanafelt et al. 2006; Väänänen et al. 2008; Alves et al. 2009).

2.2 Burnout Models

Several models have been proposed to explain the burnout process. Unsatisfactory work may lead to long-term feelings of emotional exhaustion, depersonalization, and cynicism (negative, dehumanized, and insensitive attitudes toward people who are the recipients of one's services), lack of involvement at work and low level of personal accomplishment. This burnout construct was identified by Maslach et al. (2001), who developed the Maslach Burnout Inventory (MBI).

Golembiewski et al. (1986) proposed that burnout might progress from depersonalization through lack of personal accomplishment to emotional exhaustion. This model was based on a phase approach, dichotomizing the MBI subscales, and using the mean as a cut-off score. The phase model of burnout distinguishes high versus low scores of the domains, and permits generation of eight possible combinations of the domains (depersonalization, personal accomplishment, and emotional exhaustion), which are called phases.

Maslach et al. postulated that burnout might occur when there is a disconnection between the organization and the individual with regard to what they called the main areas of work life: values, fairness, community, reward, control, and workload (Maslach et al. 2001). Lee and Ashforth (1993) proposed that burnout progresses from emotional exhaustion to depersonalization, and from emotional exhaustion to lack of personal accomplishment.

Emotional exhaustion is considered to be the most important dimension of burnout syndrome (Roelofs et al. 2005), and in close relationship with other types of mental illness, such as depression and anxiety disorders. Emotional exhaustion refers to feelings of being emotionally overextended and drained by others. Nevertheless, burnout syndrome is usually considered an individual experience that is specific to the work context.

Stressful interpersonal relationships at work may also be secondary to a lack of reciprocity that may affect worker relationships with both the institution and team members (Schaufeli 2003). Social relationships and job performance may be seriously affected.

Generally speaking, burnout syndrome may result from people giving too much of their time without adequate time to recover emotionally or physically (Felton 1998).

2.3 Burnout in an International Setting

2.3.1 Measurement Tools

The Maslach Burnout Inventory has been used to compare the prevalence and severity of burnout syndrome among countries. Mean scores of MBI dimensions from several international studies are summarized in Table 2.2. Nevertheless, the MBI cut-off points should be interpreted with caution because these values tend to vary country by country owing to social and cultural factors (Schaufeli and Van Dierendonck 1995). Validity of survey instruments developed for western countries is especially problematic when they are applied to non-western and underdeveloped countries (Thorsen et al. 2011).

2.3.2 Burnout in Developing Countries

Quality of work may be determined by the level of development of a given country. Because of globalization, people in developing countries have to deal with

Table 2.2 Reported mean scores of the Maslach Burnout Inventory dimensions in several international studies

Author, year	Country	Sample size	Setting	Emotional exhaustion	Depersonalization	Personal accomplishment
Sann, 2003	Germany	297	Teachers	18.5	4.2	32.5
Pascual, 2003	Spain	198	Teachers	21.2	3.6	31.9
Thorsen, 2011	Malawi	101	Hospital	23.1	6.2	37.8
Ndetei, 2008	Kenya	285	Hospital	17.2	7.3	29.3
Moreira, 2009	Brazil	151	Hospital	17	1.8	36.6
Benevides-Pereira, 2007	Brazil	87	Carers	19.1	4.2	39.6
Vercambre, 2009	France	2,558	Teachers	18.1	3.3	31.2
Halayem-Dhouib, 2010	Tunisia	106	Hospital	26.2	10.2	32.9

increased levels of work-related stress. In these countries, workers may not be familiar with burnout and job-stress prevention strategies (Houtman et al. 2007). Population growth, the migration from rural to urban areas where the offer of labor is higher, work deregulation, less job security and decreased workers' rights, under-employment, and the acceptance of substandard jobs are common (Houtman et al. 2007).

Many workers perform activities that they perceive as demanding, constraining and otherwise stressful. Burnout and work stress in developing countries can be aggravated by several factors outside the work environment. These include gender inequalities, poor paths of participation, a lack of occupational health services coverage, poor nutrition and hygiene, inadequate transportation systems, illiteracy, and general poverty (Houtman et al. 2007).

In addition, burnout syndrome may be particularly common among teachers and health workers. Specific health care-related occupations at risk of professional burnout syndrome are shown in Table 2.3. Dealing with patients, their relatives and members of staff may be an important source of stress at work. In the following section, burnout epidemiological studies will be reviewed according to geographical region and professional background.

2.3.3 Europe and the United States

In western countries, several studies have shown that occupational burnout may predict work disability in initially healthy employees. In Finland, a recent study showed that the hazard ratio for a new disability pension was 3.8 with severe burnout, and that exhaustion dimension predicted work disability due to mental disorders (Ahola et al. 2009). Healthcare professionals and educators are particularly affected (Hyman et al. 2011), and several studies suggest that the risk of burnout and job dissatisfaction has increased in the modern healthcare workforce (Gabbe et al. 2002; Johns and Ossoff 2005).

Table 2.3 Specific health care-related occupations at risk of professional burnout syndrome

Physicians
Oncologists
Surgeons
Anesthesiologists
AIDS unit physicians
Intensive care unit physicians
Neonatal intensive care units
Academic medicine chairs
Rehabilitation practitioners
Emergency service personnel
Dentists
Nurses
Social workers
Mental health workers
Psychologists
Occupational therapists
Speech language therapists
Medicine residents and medicine students

Several European studies have evaluated burnout syndrome in nurses and physicians. It has been estimated that burnout rates among physicians might range from 2.4 to 72% (Roth et al. 2011). Burnout syndrome has also been associated in Europe with decreased well-being, absenteeism, and decreased quality of care among nursing staff (Lu et al. 2005).

In a Scottish psychiatric nurse study, approximately 42% of the respondents exhibited a high level of emotional exhaustion (Kilfedder et al. 2001). In France, approximately one third of 2,497 staff nurses and half of 878 intensivist physicians reported high levels of burnout. Depersonalization was detected in around 37% of intensivists. In nurses, severe burnout was associated with younger age, organizational factors, conflict with patients, relationships with head nurses and physicians, and caring for a dying patient (Poncet et al. 2007). Comparison of nurses with physicians or other health care workers showed that nurses consistently reported higher levels of burnout. Burnout was associated with lower effectiveness at work, decreased job satisfaction and a reduced commitment to the job or organization. Another French study showed that more than 50% of nurses and intensivists wished to leave their jobs (Embriaco et al. 2007).

In Europe, other epidemiological studies have focused on background variables for burnout in teachers. Risk factors include gender, age, marital status, and grade level taught (Pomaki and Anagnostopoulou 2003; Pisanti et al. 2003). Organizational factors, such as role conflicts, role ambiguity, imbalance of effort and reward, as well as perception of job stressors, have been found to be important in teacher burnout syndrome (Pascual et al. 2003; Sann 2003). An epidemiological postal

survey among more than 20,000 French education workers showed that female teachers were more susceptible to high levels of emotional exhaustion and reduced personal accomplishment, whereas male teachers were more susceptible to high levels of depersonalization (Vercambre et al. 2009). Difficulties experienced with pupils were also associated with burnout syndrome (Hastings and Bham 2003; Vercambre et al. 2009).

Students can also be involved in burnout syndrome. Both burnout and training dissatisfaction are common among Greek medical residents. Systemic interventions have been proposed within the Greek health system, aimed at reducing resident impairment due to burnout and at improving their educational and professional perspectives (Msaouel et al. 2010). In the United States, an epidemiological study reported that nearly half of medical students at major schools were burned out and that negative personal life events affected their burnout rate (Dyrbye et al. 2008). Another cross-sectional study with US internal medicine residents reported high levels of emotional exhaustion and depersonalization in approximately 50%. Symptoms of burnout were less common among international medical graduates than among US medical graduates, and were associated with higher levels of educational debt (West et al. 2011).

2.3.4 African Developing Countries

In African countries, burnout studies are scarce and most have only been developed in the last decade. The debilitation of health systems due to the human resources crisis has provoked a heavy and complex workload in health carers and teachers and substantial workforce burnout. High rates of burnout among maternal health staff at a referral hospital in Malawi have been reported (Thorsen et al. 2011). In this study, nearly three quarters of workers (72%) reported emotional exhaustion, over one third (43%) reported depersonalization, while almost three quarters (74%) experienced reduced personal accomplishment. Maternal health staff experienced more burnout than their colleagues working in other medical settings. Another Malawian study found that one third of their respondents were burned out because of high levels of emotional exhaustion (McAuliffe et al. 2009).

Other studies performed in Nigeria among health professionals (Olley 2003; Onylezugbo and Nawfor 2010), in a Ghanian hospital (Fiadzo et al. 1997), and in a Kenyan psychiatric hospital (Ndetei et al. 2008) have described similar findings. In Kenya, high levels of depersonalization were observed in 47.8% of psychiatric staff, and high levels of emotional exhaustion and personal accomplishment in 38 and 37.3% respectively (Ndetei et al. 2008). Another cross-sectional study performed in a public hospital in South Africa found that physicians had high levels of occupational stress compared with the average working population. The main sources of stress were understaffing, lack of resources, lack of control, difficult work schedules, inadequate security and poor career advancement and salaries. In addition, senior doctors showed lower job satisfaction (Thomas and Valli 2006).

Taking care of severe and chronic untreatable diseases can also increase the risk of burnout among health care workers in Africa. More than three quarters of nurses caring for AIDS patients in the Limpopo province, South Africa, experienced disorders ranging from mild mood disturbances to severe depression (Davhana-Maselesele and Igumbor 2008). Sadness, dissatisfaction, fatigue, and low levels of energy were observed, and frustration was associated with their inability to help the terminally ill AIDS patients.

Some African studies have found that family-to-work conflicts, an increased number of demands from family/home/children, and fulfilling the parental role may make it difficult to perform work roles satisfactorily (Thorsen et al. 2011). Non-work-related factors, such as the number of their own children, have been associated with burnout syndrome in African countries (Ndetei et al. 2008; Thorsen et al. 2011).

2.3.5 South America

In South America, most studies on burnout syndrome are from Brazil. The prevalence of burnout syndrome among community-based health agents in the city of Sao Paulo, Brazil, has been estimated to be 24%, whereas the prevalence of mental disorders was 43% (da Silva and Menezes 2008). Moderate or high levels of emotional exhaustion, depersonalization, and reduced personal accomplishment were observed in 71, 35, and 47.5% respectively. The proportion of interviewees that stated that they regularly used antidepressants was 17%.

Another Brazilian study (de Moreira et al. 2009) performed in 151 nurses from Tubaráo hospital in Santa Catarina showed that 35.7% of the interviewees displayed burnout. Hospital wards or areas with the highest proportion of nursing staff with burnout were the grouped hospital sectors (42.6%), the intensive care unit (25.9%), and the neonatal intensive care unit (18.5%). The prevalence of professional burnout syndrome among intensive care physicians from Salvador de Bahia, Brazil, has been estimated to be 7.4%, and was associated with work overload and low income for the hours worked (Tironi et al. 2009). Other studies have also evaluated the impact of burnout syndrome on Brazilian health care providers to people living with HIV: 26.4% of carers had high scores on emotional exhaustion and 17% presented elevated levels of depersonalization (Benevides-Pereira and Das Neves Alves 2007).

A burnout study in elementary school teachers in the city of João Pessoa (northeast Brazil) showed that 33.6% of teachers had high levels of emotional exhaustion, 8.3% a high level of depersonalization, and 43.4% a low level of professional achievement (Batista et al. 2010). A Columbian study performed in teachers from two universities in Popayán (Correa-Correa et al. 2010) showed that 9.1% had high depersonalization. In Argentina a cross-sectional study of 106 cardiology residents and a comparison group of 104 age- and gender-matched non-medical professionals showed high levels of emotional exhaustion and depersonalization in the majority of respondents (Waldman et al. 2009).

2.3.6 Asia

In the last few years, several Asian and Chinese studies have focused on burnout syndrome. The relationships among job stress, burnout, depression, and health in 300 university teachers at Beijing University have recently been assessed (Zhong et al. 2009). The authors found that burnout was a mediator among job stress, the occurrence and exacerbation of depression, and poor physical health.

Several studies from Singapore have reported that Singaporean nurses experience high levels of stress related to work, and emergency and surgical nurses appear to perceive higher levels of stress than ward- and clinic-based nurses (Lim et al. 2010). The most stressful situations for Singaporean nurses were patient-related difficulties and conflicts with colleagues. Organizational issues, such as lack of participation in planning and difficulty in making changes also contributed to work stress experienced by nurses. These professionals also felt vulnerable to stress arising from the interface of work and family commitments (Lim et al. 2010).

In Mongolia, a recent study detected an increasing level of stress among medical doctors. Excessive workload has degraded physicians' attitudes toward work and it is a significant source of developing burnout, job stress and job dissatisfaction (Bagaajav et al. 2011). Female Mongolian doctors had higher burnout scores than male doctors, and female nurses were more over-committed than female doctors, perhaps because nurses were more responsible for patients' day-to-day care than doctors.

Studies performed in Muslim countries are also scarce. In Turkey, problems with childcare were significantly associated with emotional exhaustion among Turkish nurses (Demir et al. 2003). Iranian nurses also reported perceived work dissatisfaction and health threats, and disequilibrium between family and work demands (Lagerström et al. 2010). Burnout syndrome was highly prevalent among nurses and medical residents from a Tunisian hospital. High scores in emotional tiredness correlated with depression and with personal difficulties (Halayem-Dhouib et al. 2010).

In Saudi Arabia, the prevalence of burnout syndrome among multinational nurses may be high. Frequency of depersonalization was 42% and was graded as high, whereas 45% had high emotional exhaustion and 71.5% had a sense of low personal accomplishment. Married nurses were prone to emotional exhaustion (Al-Turki et al. 2010). The nurses in the patients' wards and clinics were more emotionally exhausted with higher depersonalization, and non-Saudi nurses were significantly more prone to emotional exhaustion than Saudi nurses. Working away from their home countries was an additional risk factor in expatriate nurses.

2.3.7 Australia and New Zealand

In the Australasian region, most burnout studies were performed in Australia and New Zealand. Junior doctors and residents are a subgroup of the medical profession that may be at greater risk of poorer health and burnout. The Australian Medical Association performed a health survey with 914 Australian and New

Zealand junior doctors. Approximately, 71% had low job satisfaction, 69% had burnout symptoms, and 54% compassion fatigue. In addition, half of them reported that their workload had been excessive (Markwell and Wainer 2009).

In New Zealand, high levels of burnout among medical consultants in public hospitals have been reported. One in five consultants was assessed as having high overall burnout and one third had a sense of low personal accomplishment and high emotional exhaustion. Longer time in the same job increased the risk of a sense of low personal accomplishment (Surgenor et al. 2009). Another study among New Zealand psychiatrists found that two thirds of participants had moderate to extremely high levels of emotional exhaustion, with a similar proportion describing a sense of low personal accomplishment (Kumar et al. 2007).

2.4 Mental Illness and Burnout Syndrome

Exposure to stressful life events has been associated with the subsequent onset of depressive disorders and the risk may increase with the severity and contextual importance of the event. Chronic stress factors related to the work environment and lasting several months or years may cause even more severe disease (Tennant 2002). Perception of adverse psychosocial factors in the workplace is related to an elevated risk of subsequent major depressive disorder (Bonde 2008). Work-related stress can have an effect on employee satisfaction, work productivity, mental and physical health, and increased rates of absenteeism, and can affect family roles and function (Tennant 2001).

Burnout syndrome may be a precursor or correlate of chronic depression (Iacovides et al. 1999) and an alternative form of manifesting emotional distress. Nevertheless, whereas major depressive disorder pervades most aspects of a patient's life, burnout syndrome has been considered to be a specific work-related syndrome that occurs more commonly in people who work with human recipients of services. The term "burnout" is not a recognized disorder in the Diagnostic and Statistical Manual of Mental Disorders (DSM) classification, although it is recognized in the 10th revision of the International Classification of Diseases (ICD-10) as "problems related to life-management difficulty" and described under Z.73.0 as "burnout—state of total exhaustion" (WHO 1992).

2.4.1 Epidemiology

Prevalence of depressive disorders is variable and may affect between 3% and one third of workers in cross-sectional studies. Follow-up studies based upon clinical DSM criteria have also studied employees from urban and general populations. Table 2.4 summarizes work-depression prevalence data according to country and nationality. The conclusion of these studies is that high job strain is associated with

Table 2.4 Follow-up studies on psychosocial factors and prevalence of work depressive disorders

Author	Year	Country	Setting	Sample, *n*	Prevalence	Diagnosis
Griffin	2002	UK	Public service	7,270	25–33%	GHQ-28
O'Campo	2004	USA	Population	659	28.5%	DSM-III
Wang	2005	Canada	Population	6,663	3%	Interview
Wieclaw	2006	Denmark	Population	173,826	1/1,000 person years	ICD-10
Shields	2006	Canada	Population	6,125	6%	DSM-IIIR
Clays	2007	Belgium	Companies	2,821	11.8%	CESDS
Plaisier	2007	Netherlands	Population	2,646	6.2%	DSM-IIIR
Virtanen	2007	Finland	Population	3,366	6–12%	Antidepressant prescription

CESDS Center for Epidemiological Studies Depression Scale, *GHQ* General Health Questionnaire, *DSM* Diagnostic and Statistical Manual of Mental Disorders criteria, *ICD* International Classification of Diseases

a greater prevalence of depressive syndrome, major depression episodes, and dysphoria (Mausner-Dorsch and Eaton 2000).

The variability in work-depression prevalence arises from methodological flaws that may limit comparisons among different epidemiological studies. The observed differences in study design and setting (population employees versus health workers, white collar workers versus blue collar workers), evaluation methods (face-to-face interview versus questionnaires and self-reports), and diagnostic criteria (DSM-IV criteria versus self-reported depressive symptom scales) may explain the variability of data among burnout studies. In addition, it has been suggested that the association between job strain and the occurrence of depression may suffer from reporting bias if studies rely only on individual self-reports (Kolstad et al. 2011).

2.4.2 Gender, Mental Health, and Burnout

Gender is a critical determinant of mental health and prominent gender differences may occur in the rates of depression and anxiety disorders. In fact unipolar depression, predicted to be the second leading cause of global disability burden by 2020, is twice as common in women. Gender-specific risk factors for mental disorders that disproportionately affect women include gender-based violence, socioeconomic disadvantage, low income and income inequality, and low or subordinate social status (WHO 2002).

The Women Physician's Health Study reported a depression prevalence rate among female physicians of 19.5% (Frank and Dingle 1999). In Sweden, a cross-sectional study from the Monitoring of Trends and Determinants in Cardiovascular Disease (MONICA) Study reported that in women, poor socioeconomic position was associated with burnout. Unfavorable working conditions and life situational factors may explain the high level of burnout in Swedish women compared with men (Norlund et al. 2010).

Gender disparities are even higher in developing countries where women have had only recent involvement in the workforce. In these regions, women may be particularly affected by a poor balance at the home–work interface, with consequences when poverty, unemployment, and poor living conditions converge. Several causes of burnout and work stress that may be more frequent in and specific to women include:

1. The double role that they have to play at home and work.
2. The gender roles of society and the influence of social expectations.
3. The risk of sexual harassment at work and domestic violence.
4. Gender-based discrimination is reflected in lower wages and higher job requirements (WHO 2002).

2.4.3 Models and Risk Factors

Karasek's job demand–control–social support model (Karasek 1979) has been used to analyze the dimensions and risk factors involved in burnout-associated mental illness. According to this model, job strain is defined as a combination of high job demands and low decision latitude or control over workload. This model predicts that workers with high-strain jobs, characterized by high demands in combination with little control and little social support in the workplace, are at high risk of disease (Clays et al. 2007). The risk of having a depressive disorder is higher among employees holding perceived high-demand jobs (Bonde 2008). This means decision authority, one of the components of decision latitude, may have a stronger association with depression than other dimensions of the demand–control model (Mausner-Dorsch and Eaton 2000). Therefore, decision authority incorporates an individual's ability to make decisions about his or her job and to influence the work group or company policy or both.

As noted previously, most studies have reported that the association between job strain and depression is stronger for women (Mausner-Dorsch and Eaton 2000). Nevertheless, other studies have found no noticeable differences between men and women (Bonde 2008). In the MONICA study a multiple regression analysis showed that almost half of the gender difference could be explained by work-related and life-situational factors (Norlund et al. 2010).

Several factors may influence the risk of suffering work depression and include effort–reward imbalance, organizational injustice, organizational workload (long hours of work may have an adverse effect on mental health), and workaholism; the appearance of specific stressful events in the workplace (interpersonal conflicts, sexual harassment, bullying by supervisors); personality traits (neuroticism, negative affectivity); and social support at work and outside (Tennant 2001; Kivimaki et al. 2003; Godin et al. 2005; Ylipaavalniemi et al. 2005; Fischer and Boer 2011).

Interpersonal conflicts in the workplace may be greater stressors than the relationships with clients (Pick and Leiter 1991), and bullying carries an elevated risk of provoking depression with an estimated odds ratio of 2.3 (Kivimaki et al. 2003). Nevertheless, for community workers, both the relationship with the team and the community are aspects related to burnout syndrome. In addition, the effect of

combined stressors of different origins (work and outside work) may be additional predictors of depression in married professionals.

Occupational groups may differ in the nature of their work environments. In a blue-collar environment, noise can be a relatively frequent stressor (Melamed et al. 2004). Nevertheless, the social environment, such as conflict in relationships or poor social support, usually predicts depressive disorders or burnout in most occupational groups (Tennant 2001). In Japan, blue-collar work, lack of control over work, unsuitable work and poor workplace relations may predict depressive symptoms (Kawakami et al. 2004).

2.5 Health and Financial Costs of Burnout

2.5.1 Physical, Mental and Behavioral Costs

Excessive work stress and burnout have serious health effects. Burnout may affect physiological and psychological health, cognition, and behavior. As a result, sick leave and work disability due to mental health (depression, anxiety), or physical (cardiovascular: high blood pressure, angina complaints) problems may occur (Ahola et al. 2009). Musculoskeletal disorders (back pain) and a stressful work environment are also important causes of work sick leave, and low decision latitude has been related to a high level of sick leave (Detaille et al. 2009).

Professional distress can have serious mental illness manifestations, such as anxiety, depression, leading to divorce or broken relationships, alcoholism, substance abuse, and suicide (Borritz et al. 2006; Middaugh 2007; Ahola et al. 2008; Balch et al. 2009). Overwork, overburden, and working too hard can lead to counterproductive, unhealthy, or even self-destructive behavior.

Chronic work distress can have negative repercussions for employees, their families, and the recipients or their care. A large prospective study of 1,118 married physicians found that the accumulative incidence of divorce after 30 years of marriage was 29%, and the highest divorce rates were among psychiatrists (50% after 30 years) (Rollman et al. 1997). Male physicians' mortality from suicide ratio has been estimated to be nearly 1.5- to 3.8-fold higher than that of other professionals (Frank et al. 2000). Suicide rates for physicians are estimated to be six times higher than in the general population, their cardiovascular mortality is higher than average, and about 8–12% of physicians develop substance abuse disorders (Wallace et al. 2009).

The performance and quality of activities at work may be seriously affected. An increase in medical errors has been reported in burned-out medical residents (West et al. 2006). Significant depressive symptoms were found in approximately half of cardiology residents and exhibited higher levels of burnout, perceived stress, and depressive symptoms than a control group (Waldman et al. 2009).

Reported causes of stress among caregivers include financial hardship, oppressive workloads, inadequate training skills, lack of clarity about what the caregiver is expected to do and lack of referral mechanisms. The level of stress of caregivers has been seen as a risk factor that linked elder abuse to the care of an elderly relative, and caregiver

stress may be a contributing factor in some cases of abuse. Nevertheless, violence may be the result of the interplay of several factors, including stress, the relationship between the carer and the care recipient, the existence of disruptive behavior and aggression by the care recipient, and depression in the caregiver (Krug et al. 2002).

2.5.2 Financial Costs

Mental health problems and other stress-related disorders are recognized to be among the leading causes of early retirement from work, high absence rates, overall health impairment, and low organizational productivity. People at risk of burnout and work depression can contribute to worsening job performance, increased absenteeism and job turnover, decreased productivity, and can have a negative effect on co-workers (Tennant 2001).

Burnout can provoke elevated direct and indirect costs. Direct costs include vacancy costs, loss of productivity, recruitment and administration costs, and the training and start-up costs of new trainees. Indirect costs include instability of the workforce, reduced productivity, increased stress and burnout risk among the remaining employees, and decreased commitment to work.

Poor occupational health and reduced working capacity of workers may cause economic loss of up to 10–20% of the gross national product (GNP) of a country. Globally, occupational deaths, diseases, and illnesses may account for an estimated loss of 4% of the GNP (WHO 1995). Although the true financial cost of staff burnout is unknown, the association between burnout and work loss has been calculated in some studies. The Canadian Policy Research Network estimates that stress-related absences cost Canadian employers about $3.5 billion each year (Williams and Normand 2003). In Australia, it has been estimated that 1.5 million workers suffer depression as a result of excessive job stress, costing business more than $8,000 per person every year (McConnell 2010). In the Netherlands, the cost of long-term absence and disability due to work-related stress and burnout has been estimated to be 4 billion Euros a year, about 1.5% of the GNP. Nevertheless, data on financial costs in developing countries are scarce. In "countries in transition," such as Russia, changes in "traditional hazards" (chemical, biological, and physical) have resulted in increased work-related stress and burnout costs (Kuzmina et al. 2001).

2.6 Awareness, Prevention, and Treatment of Burnout

2.6.1 Awareness, Self-confidence, Self-management, and Self-care

In industrialized countries, workers are becoming increasingly familiar with burnout (Cassitto et al. 2003), although stigma may persist in some situations such as caregiving (Werner et al. 2012). However, in many developing countries workers may lack

knowledge on this topic and are not aware of the importance of dealing with work-related stress and burnout symptoms (Cassitto et al. 2003; Houtman et al. 2007).

Burnout usually has more than one cause, and its symptoms should be dealt with on several levels, including individuals' self-confidence, self-management, and self-care. Self-confidence is considered an antecedent of burnout. Self-confidence is the belief or degree of certainty individuals possess about their ability to be successful in tasks. People who have lower levels of self-confidence will perceive more role stress because they exaggerate environmental difficulties, whereas workers who have a higher level of self-confidence will more frequently try to use active coping strategies (Bandura 1986).

Self-management means the interventions, training, and skills by which people with burnout can effectively take care of themselves and learn how to do so. Self-care strategies to maintain personal physical and mental health should also be promoted, and include all health decisions individuals make for themselves and their families to get and stay physically and mentally fit. Personal competence skills (communicability, being able to work in a team, tolerance, flexibility, service orientation) should also be taught.

Educational programs on burnout, the risk factors, and risk groups are necessary. Raising awareness of burnout is important and workers as employees should understand the causes, consequences, and costs of burnout, as well as solutions to the problem. Family and community support is also important, mainly in developing countries, and should be included in the management and addressing of the work–home interface (Cassitto et al. 2003).

2.6.2 Prevention

Preventive approaches include both modification in the work environment and also improvement in the individual's ability to cope with stress. The levels of prevention can be divided into primary preventive measures (avoidance/removal of burnout factors), secondary measures (early recognition/intervention), and tertiary measures (coping with the consequences, rehabilitation and relapse prophylaxis). Primary prevention measures include ergonomics, work and environmental design modifications, and organizational and management development. Secondary prevention to reduce work stress and burnout include worker education and training. Tertiary prevention measures should reduce the impact of stress and burnout by means of a more sensitive and responsive management system and enhanced occupational health provision (Leka et al. 2004).

The best way to prevent burnout is probably to reduce stress. There is no single strategy to prevent burnout, and flexibility, transparency, and dialogue are needed between individuals and organization. Organizations should recruit staff carefully and create adequate conditions of work. Interpersonal relationships should be fostered, and a time to share between employer and employees created. A safe work environment should be ensured and achievable targets set (UNAIDS 2008).

Burnout prevention strategies include organizational changes and education for the individual. Several factors may be successful in preventive actions and include acknowledgement and treatment of a work-related problem, the involvement of the workers in the intervention, and the use of a clear structure of tasks and responsibilities (Houtman et al. 2007). The improvement of worker's individual abilities, skills, and coping capacity may be favored through education and training in time management, stress management, and dealing with aggressive clients.

Some specific actions to prevent burnout are also important. Redistribution of high workload, prioritization of tasks, instauration of work breaks, assessment of physical risks at the workplace, and a clear description of tasks and demands may help to avoid work stress. The arrangement of regular meetings in order to discuss work problems with managers, and the performance of social activities with managers and colleagues can prevent the lack of social support at work. The use of flexible working times and provision of child care facilities and worker transportation, when needed, may help to facilitate the work–home interface (Leka et al. 2004; Burton 2008).

Low emotional support predicts increased sick leave and poorer self-assessed work ability in a generally middle-aged working population (Karlsson et al. 2010). Thus, it can be assumed that a high level of emotional support at work could modify the amount of sick leave taken. Reduction in stress levels from person-directed, person–work interface, and organizational interventions may reduce occupational stress in health care workers (Ruotsalainen et al. 2008). Interventions aimed at preventing burnout syndrome through the improvement of interpersonal relationship management in mental health workers have shown positive effects and a reduction in the level of depersonalization (Scarnera et al. 2009).

Once a severe burnout has become manifest, psychotherapeutic interventions are recommended, including, where applicable, antidepressants or other psychotropic medications. However, as no controlled studies have been published so far, how effective these interventions are must remain an open question (Kaschka et al. 2011).

2.7 Conclusions

Burnout can affect almost anybody, employees in various occupations and caregiving relations, and may be the result of a complex interaction of the workplace and social and individual factors. Burnout and work-related stress have negative consequences for the health, safety, and well-being of workers, and the productivity and cost-effectiveness of the industries and services they work for. The increasing globalization and transfer of unhealthy work practices easily turn this into a huge challenge.

A combination of organizational and individual approach strategies is necessary to prevent burnout. Longitudinal intervention studies are needed to elucidate the efficacy of preventive measures to prevent burnout syndrome and work-related

stress. There is a limited amount of information on the relationship between cultural and social characteristics and burnout syndrome/work depression in developing countries (Bonde 2008). Cross-cultural and comparative studies are needed, and prevention strategies should take into account the individual and social diversity that seems to exist around burnout syndrome.

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Chapter 3
Burnout: History of a Phenomenon

Flavio Muheim

3.1 Introduction

Burnout is increasingly serious and of widespread concern. It would be hard to find an adult in the so-called developed world who has never heard of burnout. The PubMed database currently lists more than 7,200 publications on burnout.

This chapter will present the subject of burnout from the perspective of its historical development, because burnout is not a new phenomenon: "it has its roots in the past", as W.B. Schaufeli and D. Enzmann concluded in a comprehensive review (Schaufeli and Enzmann 1998).

3.1.1 Burnout Definitions in Dictionaries

The term burnout is used in different fields, such as physics, electrical engineering, aviation, sports and psychology. In current dictionaries, the following definitions of the noun may be found:

1. Burnout is the total destruction of something (e.g., a building) by fire (http://dictionary.reference.com/browse/burnout).
2. As a technical concept, burnout stands for the breakdown of a lamp, motor, fuse or other electrical device or component through overheating (http://dictionary.reference.com/browse/burnout; The Oxford Pocket Dictionary of Current English 2009).

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3. In rocket technology, burnout is, on the one hand, the termination of effective combustion in a rocket engine due to exhaustion of the propellant; on the other hand, it means the end of the powered part of a rocket's (or jet's) flight (http://dictionary.reference.com/browse/burnout; http://www.britannica.com/bps/dictionary?query=burnout).
4. In motor sports, a burnout (also known as "peel-out" or "power brake") is the practice of keeping a vehicle stationary and spinning its wheels, causing the tires to heat up and smoke because of the friction. In this way, a tire can be worn out without covering so much as a yard (http://www.urbandictionary.com/define.php?term=peel+out).
5. In psychology, it describes a physical, emotional, and mental collapse (state or process) characterized by fatigue, frustration or apathy caused by overwork, prolonged stress or excessive activity (http://dictionary.reference.com/browse/burnout; The Oxford Pocket Dictionary of Current English 2009; http://www.britannica.com/bps/dictionary?query=burnout).

These definitions can be considered efforts to operationalize the term burnout, but it should be pointed out that a generally accepted definition does not yet exist (Nil et al. 2010; Kaschka et al. 2011).

It is important to analyze burnout as a multidimensional syndrome and a stress-related adaptive process (meaning an effective interaction with one's own environment) with three main symptoms:

1. Emotional and physical exhaustion (a sort of depletion)
2. A depersonalized response toward others (exhibiting features of cynicism and detachment)
3. A reduced sense of personal accomplishment (diminished performance level) (Nil et al. 2010).

3.1.2 Some Examples of Burnout Personalities and Case Studies in the Literature

3.1.2.1 Old Testament

A burnout-like syndrome was mentioned in the Old Testament of the Bible, although it was not exactly called that. One character is the prophet Elijah, who was famous for his success in accomplishing various miracles and victories in the name of the Lord (Transcripture International. http://www.transcripture.com/english-german-i%20kings-17.html). However, confronted with persistent obstacles and having suffered a major defeat, even he was suddenly plunged into deep despair, longing for death and wishing to fall into a deep sleep (Transcripture International. http://www.transcripture.com/english-german-i%20kings-19.html). Clerics from previous

generations named this kind of crisis "Elijah fatigue." Elijah shows three typical main symptoms of burnout:

- Intense commitment ending in exhaustion
- Disappointment
- Social disengagement.

Another historic case in the Bible with similar symptoms is Moses (Transcripture International. http://www.transcripture.com/english-german-exodus-18.html; Transcripture International. http://www.transcripture.com/english-german-numbers-11.html). It may be exaggerated to look so far back for causes or descriptions of a similar syndrome, but from this quotation the conclusion arises that burnout is a common, very well-known condition that can affect anybody.

3.1.2.2 Shakespeare (1599)

Applied to central characters in poems by W. Shakespeare (e.g., Shakespeare 1599), verbs like "to burn out" are related to symptoms of exhaustion.

3.1.2.3 Beard (1879)

In the USA the new psychopathological diagnosis "neurasthenia" was used by the neurologist G.M. Beard to describe a psychiatric syndrome with symptoms of fatigue, anxiety, headache, neuralgia (a circuit overload of the nervous system), and a depressed mood (Beard 1879).

According to W.B. Schaufeli, M.P. Leiter, and C. Maslach, who comment on G.M. Beard and previous concepts of burnout, it was "the product of a rapid technological change" (Schaufeli et al. 2009, p. 208).

3.1.2.4 Mann (1901)

More recently, but long before the "discovery" of burnout in professional settings, individuals who suffered from it have been portrayed in great detail and burnout has been related to work. Thus, in T. Mann's 1901 novel "*The Buddenbrooks*", one of the protagonists, Senator Thomas Buddenbrook, is exhausted by his political work in Hamburg (Mann 1901, p. 496).

3.1.2.5 Schneider (1911)

At the beginning of the twentieth century, there were reports of burnout cases among teachers. S.C. Körner (2003) cites an article in the German "*Oberpfälzer Schulanzeiger*" from 1911 entitled *Modern Teacher's Diseases* in which a typical nerve disease called "neurasthenia" was described, with a psychopathology/symptomatology quite similar to

today's burnout symptom specifications. Various symptoms were listed, such as sleep disorders, hypersensitivity of the skin, ears, and eyes, headache, fatigue, concentration and attention problems, reduction in performance, loss of appetite, inability to work.

3.1.2.6 Schwartz and Will (1953)

The most illustrious and maybe the most oft-cited example of burnout is the case-study of a psychiatric nurse, Miss Jones, published by M.S. Schwartz and G.T. Will in (1953). The article documented the staff's low morale and its effects on patient care in an inpatient psychiatric ward. Miss Jones' feelings and thoughts about causation were noted, and patient behaviors in response to her low morale were observed. Furthermore, the general ward milieu was analyzed and characterized as follows resistance to new ideas by other staff members, feelings of neglect by the hospital, and rejection of her help by patients.

As summarized by S. Gray and D. Diers, the authors defined "mutual withdrawal" as the coping mechanism used by both Miss Jones and her patients to deal with Miss Jones' low morale. It was like a cycle: staff expected support from other staff, but did not get any, and patients expected staff support, but did not get any; both responded by withdrawing (Gray and Diers 1992). G.A. Roberts, who commented on this case as well, concluded that many symptoms of burnout correspond to maladaptive coping strategies that aim to keep the patient at a distance, and that these may work in the short term, but without resolving anything, thereby compounding the burnout process (Roberts 1997).

3.1.2.7 Greene (1960)

Another fictional example is G. Greene's 1960 novel "*A Burnt-Out Case*" that tells the story of the world-famous architect Querry, a gloomy and disillusioned character suffering from symptoms of fatigue, apathy, aggression, and irony.

Arriving anonymously at a Congo leper colony overseen by Catholic missionaries, he is diagnosed by Dr Colin, the resident doctor, as the mental equivalent of a "burnt-out case": a leper who has gone through a stage of mutilation (Greene 1960/2004).

3.1.2.8 Bradley (1969)

Some years later, H.B. Bradley was the first to use the descriptive term burnout to refer to a psychological phenomenon in probation officers engaged in a community-based treatment program for juvenile delinquents. He stated that workers should be protected from "staff burnout" by the development of a working structure (Bradley 1969).

3.1.2.9 Freudenberger (1974)

When H.J. Freudenberger first published the term burnout in 1974 to describe the demoralization, disillusionment, and exhaustion he observed to be a specific hazard

for naive, idealistic, young service professionals, he inaugurated a new description in the sense of a model for considering work-related negative stress and dysfunction (Roberts 1997; Freudenberger 1974).

3.2 The Discovery of Burnout

Burnout as a psychological–psychiatric term was mainly coined by H.J. Freudenberger in his 1974 article "*Staff Burnout*". The psychoanalyst is considered the founding father of the burnout syndrome who had "experienced this state of feeling burnt out myself" (Freudenberger 1974, p. 159). His paper set the stage for the introduction of the concept. H.J. Freudenberger was employed as a psychiatrist in a New York Free Clinic for drug addicts, which was mainly staffed by young, idealistically motivated volunteers. H.J. Freudenberger observed that many of them experienced gradual energy depletion and a loss of motivation (volunteers could not force themselves) and commitment, which was accompanied by a wide array of mental and physical symptoms (Freudenberger 1974, p. 160). To label this particular state of exhaustion that usually occurred about 1 year after starting their work in the clinic, H.J. Freudenberger chose a word that was being used colloquially to refer to the effects of chronic drug abuse: *burnout* (Greene 1960/2004).

In 1976, C. Maslach, a social psychology researcher, became interested in the way employees in the human services cope with emotional arousal on the job. She noticed that the term burnout was colloquially used by Californian poverty lawyers to describe the process of gradual exhaustion, cynicism (i.e., a negative, unresponsive attitude toward relevant social others) and loss of commitment in their colleagues. Maslach and her co-workers decided to adopt this term as it was easily recognized by the interviewees in their study among human service professionals (Maslach 1976).

In a way, the almost simultaneous "discovery" of burnout by the clinician H.J. Freudenberger and by the researcher C. Maslach marks the beginning of two different courses of development that approach burnout from a practical and from a scientific point of view respectively (Maslach et al. 2001). The former focuses primarily on assessment, prevention, and treatment, whereas the latter is mainly concerned with research and theory (Maslach et al. 2001). Both traditions developed relatively independently of each other (Maslach et al. 2001); initially, in the so-called pioneer phase the clinical approach prevailed, while in the empirical phase the priority shifted toward a more scientific approach. The next two sections on the two distinct phases rely in particular on the review by Maslach et al. (2001).

3.3 The Pioneer Phase

In the first phase, work was exploratory and aimed at articulating the phenomenon of burnout. Two initial articles were published in the mid-1970s in the United States, one by H.J. Freudenberger in (1975) and one by C. Maslach in (1976). Their primary

contribution was to describe the basic phenomenon, give it a name, and show that it was not an uncommon response. These early writings were based on the experiences of people working in human services and health care-occupations in which the goal is to provide aid and service to people in need, and which can therefore be characterized by emotional stressors and interpersonal stressors (Maslach 1976; Freudenberger 1975).

Burnout research had its roots in care-giving and service occupations, in which the core of the job was the relationship between provider and recipient (Maslach et al. 2001; Buunk and Schaufeli 1993; Maslach 1993). This *interpersonal context* of the job meant that, from the beginning, burnout was studied not so much as an individual stress response (e.g., over-commitment or unrealistic job expectations), but in terms of an individual's relational transactions at the workplace, such as imbalances between employee resources and job demands (Maslach et al. 2001; Buunk and Schaufeli 1993; Maslach 1993). Moreover, this interpersonal context focused on the individuals' emotions and on the motives (causes that move people, e.g., personal stress-inducing schemes/think errors as one always must be the most popular) and values (appraisals of recognition, e.g., others appreciate my personality or satisfaction with one's job-employees always have to be effective) underlying their work with the care recipients (Bolanowski 2005; Leiter 2008).

The *clinical context* focused on symptoms of burnout and on issues of mental health (emotional and psychological well-being). On the *social side*, the focus was on the relationship between provider and recipient and the situational context of service occupations.

Most of this initial research was descriptive and qualitative in nature, utilizing techniques such as interviews, case studies, and on-site observations (processes in which the observer's presence in a social situation is maintained for the purposes of scientific investigation (Maslach et al. 2001; Buunk and Schaufeli 1993; Maslach 1993; Cherniss 1980a; Golembiewski et al. 1986; Schwartz and Schwartz 1955)).

Several issues emerged from these early interviews in the human services, suggesting that the burnout phenomenon had some systematic regularities:

1. The provision of service or care can be very demanding and involving.
2. Emotional exhaustion is not an uncommon response to such an overload.
3. Depersonalization (meaning cynicism) is related to emotional stress at work.
4. Personal accomplishment (meaning performance level) declines, a first indicator of a striking behavioral change.

In addition to the interviews, field observations improved the understanding of the *situational context* of the provider–recipient relationship (Maslach et al. 2001). It was possible to see at first hand some of the job factors that had been described in earlier interviews, such as the high number of clients (case load), the prevalence of negative client feedback, and the scarcity of (job) resources (lack of support).

It was also possible to observe other, unreported aspects of the interaction between provider and client, such as nonverbal "distancing" behaviors (Schaufeli

et al. 2009; Maslach et al. 2001; Buunk and Schaufeli 1993; Maslach 1993; Cherniss 1980b; Golembiewski and Munzenrieder 1988).

Interwoven throughout this early work was a central focus on relationships-usually between provider and recipient, but also between provider and co-workers or family members. These relationships were the source of emotional strain (meaning to be subjected to great stress) and rewards and a resource for coping (meaning dealing) with stress (Maslach et al. 2001; Hochschild 1983; Morris and Feldman 1996; Zapf et al. 1999).

The centrality of these interactions to the experiences that were being described made it clearer that a *contextual analysis* of the overall phenomenon would be the most appropriate way of understanding the *burnout* syndrome (Maslach et al. 2001; Hochschild 1983; Morris and Feldman 1996; Zapf et al. 1999). Burnout workshops became a primary mode of intervention, and were also used as sources of data by some researchers (e.g., Pines et al. (1981)).

3.4 The Empirical Phase

3.4.1 In the 1980s

The focus of the work on burnout shifted to more systematic empirical research (Maslach et al. 2001; Schaufeli and Buunk 2002). This work was more quantitative in nature, utilizing questionnaires and survey methodology and studying larger populations. A particular focus of this research was the assessment of burnout, and several different measurements/tools were developed (Maslach and Jackson 1981; Kristensen et al. 2005).

The shift to greater empiricism was accompanied by theoretical and methodological contributions from the field of industrial organization psychology, made by C. Cherniss (1980b) and Golembiewski et al. (1986). Burnout was viewed as a form of job stress, with links to concepts such as job satisfaction, organizational commitment, and staff turnover (employees leaving (Maslach et al. 2001)).

The industrial organization approach (meaning work psychology studies that focus on employees, workplaces, and organizations), when combined with the prior work based on clinical and social psychology, generated a diversity of perspectives on burnout and strengthened the scholarly base by using standardized tools and research designs (Maslach et al. 2001; Golembiewski et al. 1986; Cherniss 1980b).

3.4.2 In the 1990s

This empirical phase spread out in several new directions. First, the concept of burnout was extended to occupations beyond human services and education (e.g., clerics,

computer scientists, the armed forces, and managers (Maslach et al. 2001)). Second, burnout research was enhanced by more sophisticated methodologies and statistical tools (Schaufeli et al. 2009; Maslach et al. 2001). The complex relationships among organizational factors (lack of control, lack of support (Maslach et al. 2001; Cherniss 1980b; Golembiewski and Munzenrieder 1988)) and the three components of burnout led to the use of structural models in much burnout research (longitudinal studies focusing on the links between work environment at one time and the individual factors and feelings at a later time (Maslach et al. 2001; Firth and Britton 1989)).

3.4.3 In the 2000s

Research focused on subgroups not yet investigated (e.g., athletes, radiologists), continued with longitudinal studies, and, most importantly, used more clearly operationalized definitions of burnout and valid measurements (Firth and Britton 1989; Gencay and Gencay 2011; Wiggins et al. 2005; Lim and Pinto 2009). The main perspective on the burnout syndrome was and still is work-related (Weber and Jaekel-Reinhard 2000; Lim et al. 2010). Scientific efforts were supplemented by prevention studies (Awa et al. 2010) and treatment studies (Weber and Jaekel-Reinhard 2000). Moreover, current studies try to describe differences between burnout and other similar concepts such as stress, depression, neurasthenia, anxiety or chronic fatigue (Kaschka et al. 2011; Weber and Jaekel-Reinhard 2000; American Psychological Association 2000).

3.5 Burnout Today

Nowadays, burnout is not a disorder recognized by the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) published by the American Psychological Association (APA) (2000). The values of the World Health Organization (WHO) are similar, but in contrast to the APA it recognizes burnout in the ICD-10 in the group of "Problems related to life-management difficulty" as "vital exhaustion (Z73.0)" (World Health Organisation 1992). The debate on what symptoms belong to the syndrome, how to make a proper diagnosis (e.g., whether burnout belongs to the group of affective disorders or is an entity of its own; see e.g., Ahola and Hakanen (2007) or Nil et al. (2010)), the use of appropriate measurements, and the further development of interdisciplinary approaches (e.g., Weber and Jaekl-Reinhard 2000) will continue.

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Chapter 4
Burnout Symptoms and Cycles of Burnout: The Comparison with Psychiatric Disorders and Aspects of Approaches

Winitra Nuallaong

4.1 Introduction

Burnout is a term used to describe the psychological process people undergo when they react to chronic stress at work (Kim et al. 2010; Hsu et al. 2010; Ahola and Hakanen 2007; Ahola et al. 2006). Many scholars agree that the three components of burnout are emotional exhaustion, cynicism, and lack of professional competence (Kanste et al. 2006). It gradually begins with intrapersonal factors in the context of work, such as unrealistic expectations of the job, narcissistic traits, as well as a maladaptive perfectionism in which the individual has unrealistically high standards, intense ruminative concern over mistakes, compulsive doubting of their ability to accomplish tasks, and intention to avoid negative consequences (Wei et al. 2004; Enns et al. 2002; Grosch and Olsen 2000).

When people start working at a new job, they usually have unrealistic expectations of themselves, colleagues, conditions and benefits or incentives from work, career path development, etc. After the failure of these unrealistic expectations and unsuccessful coping strategies, chronic job stress is apparent and becomes progressively worse (Rella et al. 2009; Maslach 1982; Cherniss 1980; Maslach 1976). Other individual factors affecting higher rates of burnout include single marital status (Castelo-Branco et al. 2007), low education (Dai et al. 2006), lower hardiness (commitment, control, and challenge) (Garrosa et al. 2008; Kelley 1994), professional value (Leiter et al. 2009), generational value mismatch between generation X (born between 1965 and 1980) and baby boomers (born between 1946 and 1964) (Leiter et al. 2009; Stephey 2008), lack of recognition for work (Günüşen and Ustün 2009), and female gender (Norlund et al. 2010; Embriaco et al. 2007; Dai et al. 2006; Chen

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Table 4.1 Risk factors for burnout

Risk factors of burnout: organizational aspects
Workload too heavy
Lack of control over decision-making
Insufficient reward
Feeling of impersonal relationships and teamwork being undermined
Lack of fairness, particularly regarding trust, openness, and respect
Conflict of values between job and personal core values

and Lu 1993). However, there is an argument that the prevalence of burnout between the genders is inconsistent because of the confounding effect of occupation and/or marital status (Houkes et al. 2011). There is evidence showing that the level of burnout decreases with age (Norlund et al. 2010). Younger people tend to have higher burnout rates than older people because of their lack of professional experience (Peisah et al. 2009; Wu et al. 2007; Chen and Lu 1993). Six major influences have been identified as common causes of burnout, including workload, lack of control over decision-making, insufficient reward, feeling of impersonal relationships and undermining of teamwork, lack of fairness (particularly regarding trust, openness, and respect), and conflict of values between job and personal core values (Table 4.1) (Maslach and Leiter 1997).

Burnout does not only originate from individual factors, but is also associated with social environmental factors, for instance, collective burnout (perceiving how burnt out one's colleagues are) (Gonzalez-Morales et al. 2011), performance-based pay (Yeh et al. 2009), demand and control imbalance (Norlund et al. 2010; Klein et al. 2010; Hansen et al. 2009; Dai et al. 2008; Imai et al. 2004), effort–reward imbalance (Klein et al. 2010; Dai et al. 2008), aggressive administrative environment and lack of support from management (Kumar et al. 2011), low organizational justice (Cheng et al. 2011), and employment insecurity (Norlund et al. 2010; Taylor and Barling 2004). High job demand and low job resources (i.e., autonomy and performance feedback) produce burnout in terms of exhaustion and cynicism (Bakker et al. 2005). A demand control imbalance could predict all dimensions of burnout; however, some researchers have argued that high emotional demand is only related to high personal accomplishment (Sundin et al. 2007). Workload is associated with burnout in terms of too much work and working long hours (Kumar et al. 2011; Günüşen and Ustün 2009; Leiter et al. 2009; Shimizutani et al. 2008; Garrosa et al. 2008; Embriaco et al. 2007; Park and Lake 2005; Janssen et al. 1999). Some reports show workload to be a predictive factor of burnout (Castelo-Branco et al. 2007; Wu et al. 2007). However, there is an argument that as long as there is sufficient time to complete a job, workload apparently reduces burnout (Elloy et al. 2001).

Interpersonal factors such as impaired relationships have been found to be independently associated with burnout (Embriaco et al. 2007). Role conflict and supervisory conflict are related to emotional exhaustion while coworker conflict is related to cynicism (Hsu et al. 2010; Elloy et al. 2001; Fujiwara et al. 2003). Moreover, people who avoid conflict have a chance of developing burnout (Wright 2011). Burnout can be developed gradually over time and presents as a cycle.

Table 4.2 Core manifestation of burnout according to Maslach and Jackson

Maslach and Jackson's burnout
Emotional exhaustion
Depersonalization or cynicism
Lack of professional accomplishment

There are various ways to divide the burnout cycle into stages, such as the 12-Stage Burnout Cycle (Freudenberger and North 2006) the Five Stages of Burnout (Miller and Smith 1993), the Four Stages of Burnout (Gorkin 2004), and the Three Stages of Burnout (Girdin et al. 1996). Characteristics of burnout appear in various forms including physical, emotional, and cognitive symptoms. Some symptoms overlap with chronic fatigue in a normal exhausted person. On the other hand, some symptoms overlap with mental disorders such as depressive disorders, neurasthenia, and adjustment disorder. Individual and organizational interventions will be discussed in terms of alleviating job stress and reducing burnout.

4.2 The Development of Concepts

Burnout was first introduced by Freudenberger (1974) who defined burnout as a psychological syndrome arising from chronic job stress. The syndrome includes progressive emotional exhaustion, loss of motivation or demoralization, and lack of professional accomplishment. Pines et al. (1981) defined burnout as a result of chronic or repeated emotional pressure in long-term work in human services. Maslach and Jackson (1981) proposed the idea of three burnout components, including increased feeling of emotional exhaustion, cynical or negative attitudes toward clients, and a tendency to evaluate oneself negatively, particularly with regard to accomplishment on the job. Even though burnout is not included in the diagnostic systems of major psychiatric disorders, the concept seems to be familiar among people in terms of a common experience in the workplace that affects individual mental wellbeing (Schaufeli et al. 2009). However, some countries, such as Sweden and the Netherlands, accept burnout as a legitimate medical diagnosis. Thus, health professionals including physicians, psychiatrists, psychologists, social workers, counselors, human services officers, and organizational consultants have to be trained for burnout assessment and treatment (Friberg 2009; Schaufeli et al. 2009).

Based on Maslach and Jackson (1986), burnout consists of emotional exhaustion, depersonalization or cynicism, and lack of personal accomplishment or competence (Table 4.2). The symptoms gradually develop after long-term job stress.

Emotional exhaustion refers to a state of losing mental and psychological resources that has an impact on the quantity of mood, such as depleting and draining mental energy. It appears to be the most apparent manifestation of burnout and is considered a key dimension (Te Brake et al. 2008; Peterson et al. 2008). Evidence suggests that it precedes the development of cynicism and personal accomplishment

independently (Te Brake et al. 2008). Regarding impaired sleep (i.e., sleep fragmentation, more waking time, and low sleep efficacy), sleep problems in burnout can establish exhaustion and explain why people with burnout feel sleepiness and mental fatigue most of the day on weekdays with no reduction at the weekends (Ekstedt et al. 2006). Exhaustion often outweighs the other two components (Mollart et al. 2011; Kania et al. 2009; Dai et al 2008). Some stressors affect burnout through this component, such as work-on-family conflict, perceived dangers of the job, and role strain (Smith 2011). On the other hand, emotional exhaustion can predict the consequences of job strain, for instance, job satisfaction and turnover intention (Van Bogaert et al. 2010). The syndrome differs from a lower mood state such as depression in terms of burnout representing quality of mood instead of quantity (Toker et al. 2005).

Cynicism or depersonalization is described as a negative attitude toward relationships in a workplace. The issues often include relationship problems with a colleague and/or a client in terms of a detached response to commitment. Cynicism mediates a relationship between lack of job resources and poorer performance (Jourdain and Chênevert 2010; Bakker et al. 2008). However, some authors have argued that cynicism is not a distinctive manifestation, but is rather a dysfunctional coping mechanism of emotional exhaustion (Onder and Basim 2008). Dysfunctional coping styles that arise from different psychological defense mechanisms probably explain signs of cynicism as a self-protected process or an emotional buffer against chronic stress (Onder and Basim 2008). Detachment or negligence with regard to a duty often occurs and also turns into a dehumanizing perception as a result (Ryan 1971).

Lack of professional competence often engenders a reduced sense of personal accomplishment or a negative view of self-efficacy (Evers et al. 2002). People with burnout feel a decrease in their work performance or their inability to complete tasks. The symptom represents a distortion of thinking and inappropriate self-evaluation. There is evidence to support a nonlinear relationship between personal accomplishment and the other two components of burnout. Therefore, individuals with high levels of emotional exhaustion or cynicism do not always report lower personal accomplishment (Onder and Basim 2008). Lower educational status is associated with this component (Wu et al. 2007; Dai et al 2006), whereas social support can increase personal accomplishment (Dai et al. 2006). In the long term, individuals can experience a self-imposed conclusion of failure (Fink 2007).

4.3 Models of the Burnout Process (Burnout Cycle)

Burnout syndrome does not strike overnight; it develops gradually over time. Many authorities in the field of burnout have divided the process into phases or stages (Table 4.3). The steps do not necessarily follow one another in order. Many skip certain stages; others find themselves undergoing several stages at the same time. The length of each phase can also vary from one individual to another.

Table 4.3 Various models of the stages of burnout

Keywords	Burnout components (Freudenberger 1974)	The 12-Stage Burnout Cycle (Freudenberger and North 2006)	The Four Stages of Burnout (Gorkin 2004)	The Three Stages of Burnout (Girdin et al. 1996)	The Five Stages of Burnout (Miller and Smith 1993)
Motivation		1. A compulsion to prove oneself			1. The Honeymoon
Coping		2. Working harder			
Distress		3. Neglecting their needs			
Awareness and symptoms		4. Displacement of conflicts	1. Physical, mental and emotional exhaustion	1. Stress arousal	2. The Awakening
Avoidance		5. Revision of values	2. Shame and doubt	2. Energy conservation	
Intolerance	Cynicism	6. Denial of emerging problems	3. Cynicism and callousness		3. Brownout
Isolation		7. Withdrawal			
Change		8. Obvious behavioral changes			
Unliveliness		9. Depersonalization			
Desperateness	Reduced competence	10. Inner emptiness	4. Failure, helplessness and crisis		
Depression	Emotional exhaustion	11. Depression		3. Exhaustion	
Burnout		12. Burnout syndrome			4. Full Scale Burnout
Bounce back					5. The Phoenix Phenomenon

4.3.1 12-Stage Burnout Cycle

Freudenberger and North (2006) proposed the 12-Stage Burnout Cycle to show the psychodynamic details of the burnout process. The model begins with unrealistic expectations and then describes the dynamic process until burnout appears. Freudenberger's models (Freudenberger 1974; Freudenberger and North 2006) present fragmented stages with unnecessary chronological sequences, whereas others arrange the stages by severity. The stages include:

1. A compulsion to prove oneself—people have an ideal image of themselves and working hard to make colleagues recognize this.
2. Working harder—to make sure they are irreplaceable.
3. Neglecting their needs—too much dedication to work, presenting signs of workaholics such as reduced sleeping or eating, spending less time with family and friends.
4. Displacement of conflicts—they are aware that their life is going wrong in some way, but still do not notice. The first physical symptoms of stress emerge, such as headaches, nausea, muscle pains, particularly low back pain, sexual problems, sleep disturbance, loss of appetite, and shortness of breath (Kahill 1988; Belcastro 1982).
5. Revision of values—in order to keep working hard while dismissing their basic physical needs and relationships, they feel the need to avoid self-conflict by blunting emotion.
6. Denial of emerging problems—intolerance of social contact with others even in a trivial way. Cynicism, callousness (lack of sympathy), aggression and blaming of others obviously occur.
7. Withdrawal—isolating themselves and minimizing social contact, they lose direction so they try to work strictly to rule. Substances may be used to release stress.
8. Obvious behavioral changes—others see huge changes from a lively and engaged person to a fearful, shy, and apathetic individual who feels worthless inside as a result of overwork.
9. Depersonalization—feeling like a machine, the person loses contact with themselves and no longer perceives their own needs.
10. Inner emptiness—the inner emptiness expands relentlessly so the person tries to overcome this by increasing impulsive activity such as exaggerated sexuality, overeating, and drug or alcohol use emerge.
11. Depression—mood and cognitive symptoms of depression occur, such as indifference, hopelessness, exhaustion, and neglect of the future. Life loses meaning.
12. Burnout syndrome—burnout victims strongly desire to escape from the situation, sometimes accompanied by suicidal thoughts. If physical and mental collapse occurs, immediate medical treatment is needed.

4.3.2 Four Stages of Burnout

Gorkin (2004) suggested the idea of the Four Stages of Burnout, which seems like a self-checking process with familiar scenarios commonly found in people with burnout, for instance: "as soon as you get home, you head for the fridge, get out the Haagen-Dazs or Ben and Jerry's, turn on the tube, collapse on the sofa and you're comatose for the rest of the evening?" The stages include:

1. Physical, mental, and emotional exhaustion—feeling worn-out after hard work day to day.
2. Shame and doubt—experiencing a deep sense of loss and change perceived as uncontrollable.
3. Cynicism and callousness—chronic uncertainty and vulnerability turn into irritable and ironic responses to others.
4. Failure, helplessness, and crisis—coping seems to be unraveling, vulnerable not just to moodiness, but to clinical depression. It may be time for some medical or professional counseling.

The ideas of Gorkin (2004) seem to differ from those of Freudenberger and North (2006) in terms of different perspective and defining methods. Gorkin's Four Stages are looked at from the viewpoint of those suffering from burnout and are defined in a checklist. On the other hand, Freudenberger and North's Twelve Stages are from a practitioner's viewpoint and are defined as a dynamic process.

4.3.3 Three Stages of Burnout

Girdin et al. (1996) proposed the Three Stages of Burnout, which show the burnout process sequentially with symptom checklists. A criterion is met if at least two symptoms at any level occur. The stages include:

1. Stress arousal—a stage of physiological and psychological responses, including persistent irritability, persistent anxiety, periods of high blood pressure, bruxism (the grinding of teeth during sleep), insomnia, and forgetfulness. Additionally, heart palpitations, unusual heart arrhythmia (skipped beats), concentration problems, headaches/stomach problems, and acute gastrointestinal symptoms can be presented. However, some have argued that stress arousal and burnout are distinct constructs (Smith et al. 2006).
2. Energy conservation—if an attempt to compensate for stress fails, the results include excessive lateness, procrastination (postponement), excessive time off, sexual dysfunction (desire or performance), persistent tiredness in the morning, social withdrawal from friends and family, increased cynicism, resentment, increased substance use (nicotine, caffeine, alcohol, or prescription drugs), excessive apathy, and lack or loss of spirituality (Smith and Tulane University School of Social Work 2008; Golden et al. 2004).

3. Exhaustion—people who reach this stage will be aware that life has gone wrong. They may have persistent sadness or depression, chronic stomach or bowel problems, chronic mental fatigue, chronic physical fatigue, chronic headaches or migraines, the desire to "drop out" of society, the desire to get away from family, friends, and even recurrent suicidal ideation.

Girdin's Three Stages were intended to be diagnostic criteria with clear cut-off points. It is advantageous for a researcher to be able to diagnose and follow up burnout scores. On the other hand, Gorkin's and Freudenberger and North's systems seem to focus on what burnout looks like without discrimination of levels of severity.

4.3.4 Five Stages of Burnout

For Miller and Smith (1993), the Five Stages of Burnout showed mental turning points from idealism to full burnout. Interestingly, the cycle includes a final stage of resilience. The stages are:

1. The Honeymoon—the job is an ideal so the person is highly motivated and enthusiastic. They strongly need to work properly and feel delight with the job, with colleagues, and with the organization.
2. The Awakening—the happy times wane. The person realizes that their expectations are unrealistic. Nothing satisfies their needs, neither rewards nor recognition. They feel that life has been a mistake, but cannot handle it. When working hard does not change anything, they feel tired and frustrated. Professional competence and ability are reduced.
3. Brownout—chronic fatigue and irritability are prominent. The victim's lifestyle is changed in order to escape frustration. Impulsive activities are seen to be sex, drinking, drugs, partying, or shopping binges. Work performance and productivity obviously deteriorate. They may project frustration onto others in terms of cynicism, detachment, and open criticism. Substance use can be found.
4. Full Scale Burnout—this stage occurs if brownout is unresolved. Despair is the dominant feature of this final stage. It can last for several months, but in most cases for several years. The subject experiences an overwhelming sense of failure and a devastating loss of self-esteem and self-confidence.
5. The Phoenix Phenomenon—after full rest and relaxation, the burnout victim can bounce back to being more realistic with regard to the job expectations, aspirations, and goals.

Girdin's Phoenix Phenomenon looks similar to a model of coping to promote resilience and preventing burnout in medical students called the "coping reservoir" (Dunn et al. 2008). The reservoir was conceptualized as consisting of personal traits, temperament, and coping styles. Resilience can be established by a combination of the reservoir and positive inputs, including psychosocial support, social/healthy

activities, mentorship, and intellectual stimulation (share diverse perspectives, are free to disagree). On the other hand, burnout can occur if the reservoir cannot be replenished over negative input, including stress, internal conflict, and time and energy demands (Dunn et al. 2008).

4.4 Manifestation of Burnout (Symptoms)

Burnout is a process rather than a state of mind. Each process describes symptoms and signs among individual, interpersonal, organizational, and societal context (Fischer and Boer 2011). To simplify, burnout symptoms can be categorized into five groups consisting of physical, affective, cognitive, behavioral, and motivational (Table 4.4) (Schaufeli and Enzmann 1998).

4.4.1 Physical Symptoms

Physical illness is more commonly found among burnout people than others. Some diseases have been found to be related to burnout, for instance, diabetes type II (Melamed et al. 2006a), and cardiovascular disease (Honkonen et al. 2006). The prevalence of illnesses increases with burnout severity, such as cardiovascular disorders and musculoskeletal diseases (Honkonen et al. 2006). People with burnout report more physical health complaints and have a faster rate of deterioration in physical health over a 1-year period (Kim et al. 2011). Evidence shows that burnout is linked to ill health by potential mechanisms such as metabolic syndrome, dysregulation of the hypothalamic–pituitary–adrenal axis (Kudielka et al. 2006), systemic inflammation, impaired immunity function, or poor health behavior (Melamed et al. 2006a).

Physical manifestations of burnout can look like those of stress, responding with sympathetic nervous system activation. The anxiety-like symptoms include headache, nausea, light-headedness, restlessness, nervous tics, sexual problems, increased heart rate, and high blood pressure (Melamed et al. 2006b). Burnout is also associated with impaired sleep (Brand et al. 2010; Ekstedt et al. 2006; Melamed et al. 2006b), impaired awakening (Stenlund et al. 2007), short sleeping

Table 4.4 Categories of burnout symptoms

Burnout symptoms
Physical
Affective
Cognitive
Behavioral
Motivational

time (Tokuda et al. 2009), and insomnia (Armon et al. 2008; Vela-Bueno et al. 2008). Psychosomatic symptoms have been found, related to emotional exhaustion and cynicism (Jourdain and Chênevert 2010). Burnout can present with increased pre-menstrual tension, missed menstrual cycles, hyperventilation, ulcers, gastro-intestinal disorders, frequent and prolonged colds, flare-ups of pre-existing disorders (asthma or diabetes), and injury from risk-taking behavior. Depressive-like symptoms also occur, including chronic fatigue, physical exhaustion, weight change, loss of appetite, and shortness of breath (Armon et al. 2010; Gorter et al. 2000; Schaufeli and Enzmann 1998; Kahill 1988). Muscle pain, particularly neck and low back pain, and sleep disturbance can discriminate burnout from non-burnout (Peterson et al. 2008). Although there was a lot of evidence to support an association between burnout and physical illnesses, burnout may not directly cause the symptoms, but it mediates between job stress and poor physical health (Zhong et al. 2009).

4.4.2 Affective Symptoms

Emotional exhaustion is probably the most iconic symptom of burnout. Depressive and anxiety symptoms are commonly reported in terms of depressed mood, changing mood, decreased emotional control, undefined fears, increased tension, anxious feeling, aggression, irritability, being oversensitive, lessened emotional empathy with recipients, increased anger, and job dissatisfaction (Schaufeli and Enzmann 1998; Kahill 1988). Evidence has shown burnout to be a mediator between job stress and occurrence or exacerbation of depressive symptoms (Zhong et al. 2009). Others have supported the reciprocal relationship between burnout and depressive symptoms and that job strain predisposes to burnout via depression. However, job strain can lead to burnout directly as well (Ahola and Hakanen 2007).

Depression and anxiety can discriminate burnout from nonburnout victims in terms of different patterns of health indicators and lifestyle factors (Peterson et al. 2008). Moreover, there is evidence to support the notion that burnout, depression, and anxiety are differentially associated with microinflammation biomarkers (high-sensitivity C-reactive protein [hs-CRP] and fibrinogen), dependent on gender. In women, burnout was positively associated with biomarkers, whereas anxiety was negatively associated with them. In men, depression was positively associated with biomarkers, but not with burnout or anxiety (Toker et al. 2005).

4.4.3 Cognitive Symptoms

Helplessness is the cognitive symptom that is prominent at an individual level (Ohue et al. 2011). On an interpersonal level, burnout shows a cynical and dehumanizing perception of others, negativism, pessimism, lessened cognitive empathy, stereotyping,

labeling in derogatory ways, blaming, air of grandiosity and righteousness, hostility, suspicion, projection, paranoia, feeling of not being appreciated, and a distrust of management (Schaufeli and Enzmann 1998). At an intrapersonal level, irrational beliefs can occur, including dependency needs, problem avoidance, and helplessness (Ohue et al. 2011). Memory impairment can also occur and can discriminate burnout from nonburnout (Peterson et al. 2008).

4.4.4 Behavioral Symptoms

At the late stage of chronic job stress, behavioral changes obviously appear in terms of reaction to increased arousal. Individually, dependence and problem avoidance are irrational beliefs related to burnout (Ohue et al. 2011). Burnout sufferers are prone to hyperactivity, impulsivity, procrastination (postponement), neglect of recreational activities, and compulsive complaining. They also increase their consumption of alcohol to alleviate frustration (Peterson et al. 2008). Emotional exhaustion and lack of personal accomplishment relate negatively to citizenship behavior (Chiu and Tsai 2006). Because of poorer impulse control, aggression and violence are common. Colleagues may find them to have violent outbursts, interpersonal conflict, to respond to others in a mechanical manner, using distancing devices, jealousy, and compartmentalization (Schaufeli and Enzmann 1998). In physicians, there are more frequent instances of suboptimal patient care (Williams et al. 2007). Work performance is affected by reduced effectiveness, a tendency to make errors (Mollart et al. 2011; Williams et al. 2007), declined productivity, tardiness, theft, resistance to change, being over-dependent on supervisors, frequent clock-watching, rigidly following the rules, increased accidents, inability to organize, and poor time management (Van Bogaert et al. 2010, 2009; Zhong et al. 2009; Spence Laschinger and Finegan 2008; Schaufeli and Enzmann 1998).

At an organizational level, burnout can predict sick leave and increasing sick leave days as well as spells of sick leave per year (Borritz et al. 2006). It is also related to employee turnover (Zhang and Feng 2011; Van Bogaert et al. 2010, 2009; Goodman and Boss 2002; Lee and Ashforth 1996), intention to quit (Leiter and Maslach 2009; Armstrong-Stassen et al. 1994), and reduced organizational commitment (Lee and Ashforth 1996). However, some authors have argued that only emotional exhaustion is related to turnover intention, not all burnout dimensions (Sasaki et al. 2009).

4.4.5 Motivational Symptoms

When burnout victims are aware of their unrealistic expectations, idealism is lost followed by a loss of zeal. Reduced motivation can also be seen as disillusionment, resignation, disappointment, boredom, and demoralization. Life and job satisfaction

are diminished (Tokuda et al. 2009; Sarmiento et al. 2004). Colleagues may see them lose interest, be discouraged, use others to meet personal and social needs, and become over-involved. Work performance is poorer as a result of low morale, loss of work motivation, resistance to going to work and diminishing of the work initiative (Schaufeli and Enzmann 1998). It can develop into an aversion to the job (Takeda et al. 2005).

4.5 Burnout and Psychiatric Disorders

Even though burnout has devastating influences and causes many kinds of mental disorders, the syndrome itself is a mental problem in a workplace, has not been approved as a mental disorder, and yet it has been found in other areas beyond a working situation. Nevertheless, Sweden and the Netherlands have approved burnout as a nationally legitimated diagnosis (Friberg 2009; Schaufeli et al. 2009).

Although, no empirical study has clearly explained burnout to be a predictor of a mental disorder in the past decade, some reports have shown burnout to be related to mental disorders (Zhong et al. 2009; Peterson et al. 2008; Ahola and Hakanen 2007; Ahola et al. 2005). Burnout symptoms, however, are similar to some of the symptoms of psychiatric diagnoses, such as neurasthenia, adjustment disorder, and depression (WHO 1992). Thus, differentiation between burnout and the other diagnoses is extremely important to a risk-taking group for early detection and early treatment. Interestingly, symptoms in the early stages look like normal fatigue, while the late stages overlap with major psychiatric disorders, such as depression and neurasthenia. Hence, discrimination would be an important issue for a practitioner because the duration of a psychiatric episode could be reduced with early medical treatment (Kupfer et al. 1989).

4.5.1 Burnout and Chronic Fatigue

Chronic or persistent fatigue (refers to severe, continued tiredness) from job stress is a reversible process commonly seen in the general population and is also a relatively common complaint in primary health care (Huibers et al. 2003). Some symptoms are similar to those of burnout, including the themes about the overloading process triggering illness onset, the need for restoration of depleted energy, and external causal attributions (Leone et al. 2011). Nevertheless, the longitudinal courses of burnout and prolonged fatigue seem different (Leone et al. 2008). The severity of fatigue does not depend on a situation, but on physical, emotional, and mental resources. People with normal exhaustion can bounce back after adequate rest. If exhaustion is prolonged, burnout or mental disorders may occur.

According to Table 4.5, burnout victims differ from normally exhausted people who feel stress in these areas (Rakovec-Felser 2011).

Table 4.5 Comparison between burnout and stress manifestations

Burnout	Stress
Disengagement (Lue et al. 2010; Demerouti et al. 2001)	Over-engagement
Blunted (dull) emotion	Over-reactive emotion
Primarily emotional damage	Primarily physical damage
Loss of motivation and drive	Loss of physical energy
Producing demoralization	Producing disintegration – unconscious impulses as defenses against a deeper and unspeakable dread (Kohut 1984)
Sense of helplessness and hopelessness	Sense of urgency and hyperactivity
Producing panic, phobia, or anxiety symptoms (Kuhn et al. 2009; Peterson et al. 2008)	Producing paranoia, depersonalization, and detachment

Some symptoms of burnout and stress are shared, such as stressed people depending on tea, coffee or cola to keep them going whereas those with burnout also increase coffee and alcohol consumption in order to reduce hyperactivity or violent outbursts (Peterson et al. 2008; Schaufeli and Enzmann 1998). In addition, experiencing decreased sex drive and sexual problems is similar in both conditions (Kahill 1988).

4.5.2 Burnout and Depression

Late stages of burnout can share symptoms with depression. Although burnout is conceptually distinct from clinical depression, some symptoms overlap, such as feeling of sadness, fatigue, inability to concentrate, feelings of dysphoria, and low energy (Schaufeli and Buunk 2003). The uniqueness of burnout includes the work-related context and the depletion of emotional resources, whereas depression is nonspecific and involves a lower emotional state (Corrigan et al. 1994).

Depressive episodes according to the ICD-10 (International Classification of Diseases, 10th revision) (WHO 1992) are characterized by depressed mood most of the day for 2 weeks. There was no history of hypomanic or manic episodes and also no direct effect from substances. In addition, depressive disorders must have at least four of the somatic (biological, vital, or melancholic) symptoms present, including loss of interest and pleasurable feelings, reduced capacity for enjoyment, interest, and concentration, reduced self-esteem and self-confidence, ideas of guilt or worthlessness, sleep disturbance, depression (worst in the morning), marked psychomotor retardation or agitation, diminished appetite, weight loss (at least 5% of body weight in the last month), or loss of libido. Theoretically, depression is context-free, whereas burnout is context-specific to the emotional depletion from work. The burnout process develops in a considerably different manner from the usual development of depression (Schüler-Schneider et al. 2011). Nevertheless, there is a high positive correlation between burnout and measured depression (Schaufeli and Enzmann 1998; Meier 1984).

4.5.3 Burnout and Neurasthenia

Neurasthenia or fatigue syndrome is a disease that was incorporated into the ICD-10 diagnosis system (WHO 1992). Symptoms consist of increased fatigue after mental effort with two other additional symptoms, including bodily or physical weakness and exhaustion, muscular aches and pains, inability to relax, dizziness, tension headaches, feelings of general instability, sleep disturbance (hypersomnia is prominent), worrying, irritability, anhedonia (inability to experience pleasure from activities), and mental fatigability (distraction, difficulty in concentrating, and generally inefficient thinking). Some symptoms overlap with those of burnout, such as:

1. Mental fatigability after minimal effort, often associated with being overwhelmed by uncontrollable negative thinking, poor concentration, or poor performance in general.
2. Bodily or physical weakness and exhaustion after minimal effort often associated with muscular aches and pains, and inability to relax.

In 2000, the Netherlands established and published a practice guideline for evaluating and treating stress-related diseases through the Royal Dutch Medical Association (van der Klink and van Dijk 2003). Diagnosis based on this practice guideline is classified according to the following three levels of stress-related diseases. Burnout occurs in the last and most severe phase.

1. Distress (*Spanningsklachten*) means a little stress that results in only a few work problems.
2. Nervous breakdown (*Overspannenheid*) means more severe distress, which results in significant work problems.
3. Burnout means work-related neurasthenia symptoms that result in the long-term loss of the work role.

In 2005, Sweden added the diagnosis of exhaustion disorder, F43.8 (*Utmattningssyndrom*), within its national version of ICD-10 (Friberg 2009). Diagnostic criteria consist of the same details as for burnout, i.e., physical and mental fatigue for at least 2 weeks, significantly decreased efficiency at coping with stress, irritability, sleep problems, muscle pain, and dizziness or palpitations. These symptoms must have occurred every day in the last 2 weeks and caused significant suffering from loss of work performance. In addition, these symptoms must not meet the diagnostic criteria of other mental or physical disorders, or be induced by drugs.

North America's viewpoint on burnout is different. There it is viewed as a non-medical problem, and rather as the name of a condition that is generally accepted in society. Using this name helps to eliminate the stigma from the diagnosis of mental disorders (Shirom 1989). On the other hand, the burnout problem is widely known in Europe because it can be an official medical diagnosis that affects the provision of welfare and labor compensation, including public welfare for medical services. (Schaufeli et al. 2009)

In Asia, the name "burnout" is not very familiar as a fatigue syndrome. However, some scholars have noticed that neurasthenia is probably a cultural manifestation of

burnout called *shinkeishitsu* or *taijinkyofusho* in Japan (Russell 1989) and *Shenjingshuairuo* in China (Lin 1989). Russell (1989) suggested that neurasthenia is still used in Japan as a general expression to camouflage other severe mental disorders, such as depression or schizophrenia. People feel that neurasthenia is a curable disease to which there is no stigma attached (Machizawa 1992). In China, neurasthenia is a diagnosis in the Chinese Classification of Mental Disorders, Second Edition, Revised (CCMD-2) (Zhong et al. 2009) that refers to a state of reducing mental energy (*qi*) as a result of dangerous intrinsic or extrinsic factors affecting the heart, liver, spleen, lung, and kidney. If these symptoms are related to work, they seem to be similar to those of burnout. Another idea in traditional Asian medicine is known as vigor. Vigor is described as being the opposite of burnout. It is defined as a three-tiered sustained mood state that is characterized by physical energy, mental acuity, and cognitive liveliness (Talbott et al. 2010).

Neurasthenia cannot describe all contexts of burnout because it is mostly viewed in physical rather than mental dimensions. Nor does it emphasize the importance of work-related causes, and it is additionally viewed as a minor diagnosis, which varies from culture to culture. However, it is viewed as a syndrome that is still of interest among the Chinese and Japanese medical communities. It may be stated that this work-related fatigue syndrome with different names is of interest in many regions in the world but with different definitions and social contexts.

To simplify them, the Table 4.6 shows how burnout differs from neurasthenia, depressive episodes (ICD-10), major depressive episodes (DSM-IV) (APA 2000), and subthreshold depressive symptoms (NICE guideline) (NICE 2009).

In summary, the differences among neurasthenia, depressive episodes (ICD-10), major depressive episodes (DSM-IV), and subthreshold depressive symptoms (NICE) include:

1. Diagnosis—burnout does not have specific criteria for diagnosis, whereas other conditions do.
2. Cause—burnout and neurasthenia relate to job stress whereas other conditions are not specific.
3. Physical symptoms—burnout can present any physical symptoms of depression and anxiety. However, they are not specific.
4. Emotional symptoms—burnout affects the quantity of mood (depleting), whereas other conditions affect the quality of mood (depression or loss of interest).
5. Cognitive symptoms—burnout presents with a negative attitude toward others and oneself, whereas others present with reduced mental function.
6. Duration—burnout does not have a specific duration whereas other conditions do.

4.5.4 Burnout and Adjustment Disorder

Adjustment disorder (F43.2) is a disease in the diagnostic system of ICD-10 that falls into a group of reactions to severe stress and adjustment disorders (F43). It is distress and emotional disturbance that often disturb the life and professional

Table 4.6 Differences among burnout and neurasthenia, depressive episodes, major depressive episodes, and subthreshold depressive symptoms

	Burnout	Neurasthenia F48 (ICD-10)	Depressive episodes F32 (ICD-10)	Major depressive episodes (DSM-IV)	Subthreshold depressive symptoms (NICE)
Diagnosis	Nonspecific	The symptoms do not meet criteria for other mental disorders	2–3 symptoms for mild episodes, 4 or more for moderate/severe episodes	At least 5 symptoms presenting (must have depressed mood or loss of interest)	Less than 5 symptoms presenting (must have depressed mood or loss of interest)
Cause	Job stress	Often related to job stress	Nonspecific	Nonspecific	
Physical symptoms	Nonspecific	Increased fatigue after mental effort	Waking in the morning several hours before the usual time	Significant weight loss (more than 5% of body weight in a month)	
		Bodily or physical weakness and exhaustion	Marked psychomotor retardation	Psychomotor agitation or retardation	
		Muscular aches and pains	Diminished appetite	Fatigue or loss of energy	
		Inability to relax	Reduction of energy	Insomnia or hypersomnia	
		Dizziness	Marked tiredness after even minimum effort		
		Tension headaches	Decrease in activity		
		Feelings of general instability	Agitation		
		Sleep disturbance (hypersomnia is prominent)	Loss of appetite Weight loss Loss of libido Sleep disturbance		

Emotional symptoms	Depleting emotional resources	Worrying Irritability Anhedonia	Lowering of mood Loss of interest and pleasurable feelings Depression worst in the morning	Depressed mood most of the day Markedly diminished interest or pleasure in almost all activities
Cognitive symptoms	Cynicism Lack of professional competence	Mental fatigability (distracting, difficulty in concentrating, and generally inefficient thinking)	Reduced capacity for enjoyment, interest, and concentration Reduced self-esteem and self-confidence Ideas of guilt or worthlessness	Diminished concentration Feelings of worthlessness or excessive or inappropriate guilt Recurrent thoughts of death or suicidal ideation
Duration	Nonspecific	At least 6 months	At least 2 weeks	At least 2 weeks

competence of an individual and occurs during adjustment after a major change in life or a stressful situation. Factors that can cause stress are of many types, such as:

1. Social network, such as departure of close persons or being abandoned.
2. Social assistance or appreciation, such as settlement or being an immigrant.
3. Age transition or crisis, such as school enrolment, parenthood, failure in one's achievement or retirement.

Symptoms may appear to vary in each person depending on their sensitivity. However, this diagnosis must always result from stress-induced factors. Symptoms found include sadness, anxiety, and inability to cope with problems or situations, including decreased daily routine performance. An important point is that if a stress-induced factor is specifically concerned with work, this diagnosis will fall under sub-topic F43.8, which is "other reactions to severe stress."

4.6 Aspects of Individual and Organizational Approaches

Less burnout relates to higher self-rated emotional factors, higher job satisfaction, and higher client satisfaction (Weng et al. 2011; Van Bogaert et al. 2010). Since burnout originates from intrapersonal and social–environmental factors, approaches can be categorized into individual and organizational interventions. To achieve better results, the intervention implemented to reduce burnout risk should include enhancement of individual hardiness rather than just decreasing environmental stressors (Günüşen and Ustün 2009; Garrosa et al. 2008).

4.6.1 Individual Approaches

People with higher resilience appear to have less emotional exhaustion or cynicism than individuals with lower levels of resilience because they are less vulnerable to burnout and have better engagement skills (Menezes de Lucena Carvalho et al. 2006). Some personal characteristics predict less burnout, such as optimism and hardiness (Otero-López et al. 2008). Personal stress management and interpersonal skill development have a strong negative correlation with cynicism and lack of accomplishment (Taormina and Law 2000). Increasing work performance can also reduce cynicism (Bakker et al. 2008).

Since cognitive reinterpretation and problem solving predict low levels of cynicism and high levels of professional efficacy, enhancement of cognitive coping skills and problem-solving skills could contribute to the reduction of burnout (Sasaki et al. 2009). Among nurses, enhancing cognitive empathy, perceived power, and improving working relationships with physicians can reduce levels of burnout

(Kanai-Pak et al. 2008; Lee et al. 2003). Increasing assertiveness and satisfaction with their own care provision also contribute to burnout prevention among nurses (Suzuki et al. 2009).

4.6.2 Organizational Approaches

Environmental and interpersonal factors have an impact on stress and burnout levels in employees. From an organizational perspective, there are various interventions that can be implemented to reduce or prevent burnout. The organization can play a role, for example:

1. To strengthen coping resources to prevent burnout, including job redesign
2. Modification of the shift work system
3. Offering occupational health education (Wu et al. 2007)

Creating a work environment, such as balancing effort and reward, can prevent burnout and foster positive health (Spence Laschinger and Finegan 2008). To alleviate burnout, the dual strategy of decreasing job demands and increasing job resources can reduce the levels of emotional exhaustion (Jourdain and Chênevert 2010). Reducing job control is associated with cynicism, while a chance to access a higher educational level and social support may affect the accomplishment index (Dai et al. 2006). Providing clear job descriptions and work expectations may reduce the level of burnout (Lee et al. 2003). Even though work overload seems to be an important risk factor, evidence has been found that the amounts of work may not be the issue. Sufficient time to complete a job appears to be the factor that diminishes burnout (Elloy et al. 2001).

Among individual factors, support from facilitators or supervisors appears to be an important preventing factor (Lederer et al. 2008; Castelo-Branco et al. 2007). Co-worker and client support are significantly related to all three dimensions of burnout, whereas supervisor support is only related to emotional exhaustion (Sundin et al. 2007). Work-related social support is closely associated with emotional exhaustion (Otero-López et al. 2008; Mitani et al. 2006; Jenkins and Elliott 2004). Cultivating appropriate coping behaviors, such as disengagement and solving client-related conflict, can reduce client-related burnout (Shimizutani et al. 2008). Job training can predict less emotional exhaustion, whereas organizational understanding about burnout can predict less cynicism (Taormina and Law 2000). Participation in educational rotation not only expands the professional role, but can also prevent burnout (Huff et al. 1983).

Another alternative idea is to change the negative organizational view of burnout into a more positive view of wellness. Strategic interventions include promoting cultural change by developing a shared definition of wellness, raising awareness of burnout and its symptoms, decreasing the stigma attached to burnout, enabling

prevention strategies such as increasing engagement with work, which reframes burnout, and creating a more positive and strength-based approach to burnout (Eckleberry-Hunt et al. 2009; Maslach, and Goldberg 1998; Patrick 1984).

4.7 Conclusion

Burnout is a syndrome related to prolonged stress at work. There are three components: emotional exhaustion, cynicism, and diminished professional competence and sense of accomplishment. Burnout is a process that gradually develops after loss of unrealistic expectations. If problem-solving strategies are ineffective and cannot encourage individuals to bounce back to a normal status, burnout may occur within a short period. A cycle of burnout can be present, with physical, emotional, cognitive, behavioral, and motivational symptoms, while each stage does not necessarily develop sequentially. Even though burnout shares some physical and emotional symptoms with chronic stress, depression, neurasthenia, or adjustment disorder, the core emotional and cognitive symptoms are quite different. Discrimination would be advantageous because early individual and organizational approaches to either burnout or mental illnesses can predict a better prognosis.

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Chapter 5
Treatment of Burnout: Overlap of Diagnosis

Ulrich-Michael Hemmeter

5.1 Introduction

The burnout process can lead to a variety of somatic and psychological symptoms that may appear in very different clinical forms in patients. The burnout syndrome can be associated with psychiatric disorders, in particular the anxiety–depression spectrum or (concerning exhaustion as a prominent symptom) disorders related to chronic fatigue syndrome. In addition, burnout can also lead to somatic disorders (von Känel 2008; Kaschka et al. 2011). The burnout syndrome does not fall into a disease category in the internationally established diagnostic manuals such as ICD-10 and DSM IV (Nil et al. 2010). Because many symptoms of burnout can be observed in other clearly classifiable disorders according to ICD-10 or DSM IV, there is a symptom overlap with other diagnoses, such as depression (Ahola et al. 2005; Kaschka et al. 2011).

Burnout develops within the framework of a certain constellation, determined by individual circumstances contributing to the burnout process and the development of the disease. The relevance of an exact diagnosis and the implications for therapy will be described in more detail in this chapter.

5.2 Diagnosis

In the internationally established diagnostic manuals, such as the ICD-10 and DSM IV, the burnout syndrome has only the status of a Z-Diagnosis, which reflects an additional diagnosis to the specific psychiatric disorders classified as having an F-Diagnosis (Dilling et al. 2008).

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Because of the heterogeneity of symptoms and different etiological descriptions, burnout is defined in different ways according to the theoretical models under consideration, e.g., the jobs demand resource model (Demerouti et al. 2001), the model of effort reward imbalance (Siegrist 1996), and the dual level of exchange model (Schaufeli et al. 1996). Despite different etiological constellations and the different symptoms described, these models all share a common concept: Burnout is a dynamic developing process based on the perception of chronic stress due to workload and insufficient personal resources (Freudenberger 1982; Fagin et al. 1996; von Känel 2008). A weakness of all these concepts of burnout is that a precise description of etiologically involved factors is lacking (Kaschka et al. 2011).

For the assessment of burnout, several screening tests have been developed. To date, more than 90% of studies on burnout topics have been performed with the Maslach Burnout Inventory (MBI) (Maslach et al. 1996; Kaschka et al. 2011) in spite of major shortcomings, predominantly concerning the validity of this scale (Korczak et al. 2010). The burnout syndrome has been mainly assessed by self-rating scales, in particular the MBI. Psychometric investigations reveal that only the factor of "emotional exhaustion" seems to be a consistent dimension, whereas the other two dimensions of "depersonalization" and "personal accomplishment" have not shown consistent results (Kaschka et al. 2011).

The main difference between psychiatric disorders as described by the ICD-10 and the various definitions of the burnout syndrome is that burnout is—despite numerous overlaps with psychiatric symptoms—a workplace-related social construct (Leiter and Durup 1994) rather than a cross-sectional "stationary" diagnosis. A large variety of burnout symptoms emerge as a result of this ongoing social process, which is induced and maintained by chronic stress (Appels 1997; Hodge et al. 1994). The result of this process is that very different stress-related symptoms, which can become evident on a physiological or psychological level, emerge (Pruessner et al. 1999). These symptoms can become so severe that different disorders that may achieve ICD-10 criteria might be diagnosed. Therefore, depending on the stage within the chronological model of burnout stages (Burisch 2010; Shirom et al. 2005), burnout can produce very different symptoms and at each stage the symptoms may more or less overlap with those of other disorders or even allow or require the diagnosis of other disorders (even if developed during a burnout process) (Tennant et al. 1981; Linden and Muschalla 2007; Ahola et al. 2007).

The common pathway is the common etiology that underlies the burnout process.

Based on these considerations, depression—for example—may have a burnout etiology, but can also have a completely different etiology, for instance "endogenous" depression that includes great vulnerability without a clear source of external stress.

5.3 Overlap of Diagnosis

5.3.1 Burnout and Psychiatric Disorders

In the latter stages of the burnout process a number of somatic and psychological symptoms severe enough for the diagnosis of a disease and for the requirement of specific treatment can be observed (Honkonen et al. 2006; Melamed et al. 2006; Sonnenschein et al. 2007).

Concerning psychiatric disorders, depression, anxiety, as well as adjustment disorders with depressive or mixed depressive/anxiety states, neurasthenia, and chronic fatigue syndrome should be taken into account. In addition, burnout patients frequently present with pain symptoms and tend to develop substance abuse (Weber and Jaekel-Reinhard 2000); thus, these nosological categories also need to be considered (Kaschka et al. 2011). Because of the symptoms described for burnout, the overlap with the spectrum of depression–anxiety, as well as with that of neurasthenia and chronic fatigue, seems to be the most significant (Korczak et al. 2010). Therefore, these disorders—which also overlap substantially themselves—will be specifically addressed.

5.3.2 Burnout and Depression

As the severity of the burnout process increases, so does the probability of developing depression. This is supported by a Finnish study showing that in hospitalized patients with intense burnout, depression is diagnosed in more than 50% of the cases (Ahola et al. 2005). In addition, an overlap between depression and the symptoms of emotional exhaustion has been found in 26% (Schaufeli and Enzmann 1998) and depression is a strong predictor of all three burnout factors (Nyklícek and Pop 2005). Therefore, burnout can constitute a risk factor for the development of depression (Korczak et al. 2010). Conversely, depression, or even hereditary load, can be a predictor of emotional exhaustion (Nyklícek and Pop 2005).

According to the ICD-10, depression (either a single episode or recurrent depression) is characterized by the main symptoms:

- Depressed mood
- Loss of interest
- Loss of energy

Other frequent symptoms are cognitive disturbances such as:

- Reduced attention and concentration
- Sleep disturbance
- Reduced appetite
- Feelings of worthlessness and guilt

Table 5.1 Comparison of burnout (according to the MBI: Maslach Burnout Inventory) and depression

	Burnout	Depression
Concept	Social and occupational–psychological construct	Clinical diagnosis
Etiology	Result of a process, initiated and maintained by chronic stress at work	Psychiatric disorder without a distinct context
Integrative dimensions of the phenomenon/ the diagnosis	Triad according to MBI:	No conceptual dimensions, but guiding symptoms (DSM IV/ICD-10):
	Emotional exhaustion	Depressive mood
	Depersonalization/cynicism	Loss of interest and feelings of joy
	Personal accomplishment	Reduced energy
Adjuvant symptoms	According to MBI:	Change in weight/appetite
	Exhaustion	Sleep disturbance
	Tiredness	Psychomotor agitation or retardation
	Reduced empathy	Fatigue/tiredness
	Frustration	Feelings of worthlessness and guilt
	Indifference	Loss of concentration
	Sleep disturbance	Suicidal thoughts or plans
	Feelings of worthlessness and failure	

Modified after Nil et al. 2010

- Loss of self-confidence
- Negative cognitions about the future
- Suicidal thoughts and acts

Depending on the number and severity of symptoms, mild, moderate or severe depression can be diagnosed (Dilling et al. 2008).

All the symptoms described can be observed in subjects with burnout. If the presenting symptoms are sufficient for the diagnosis of depression, then depression has to be diagnosed and treated accordingly (see below). Furthermore, if the anamnesis and the assessment scales provide the information that burnout underlies the cross-sectional clinical picture of depression (Table 5.1), this information should be considered and included in the therapeutic strategy (see below).

In addition to fully established depression, depressive symptoms that are not sufficient to establish the diagnosis of depression can also occur. These symptoms represent a so-called sub-threshold depression, which clearly affects patients' daytime performance and increases the risk of the development of a depressive episode or a relapse into depression (Judd et al. 1999).

5.3.3 Burnout and Anxiety Disorders

Another important differential diagnosis for burnout comes from the anxiety spectrum (Linden and Muschalla 2007). In particular, subjects should be screened for generalized anxiety disorder (GAD, ICD-10 F41.1). In addition to symptoms of free floating anxiety on most days for several weeks (usually for several months) the symptoms usually involve elements of:

- Apprehension (worries about future misfortune, feeling "on edge," difficulty concentrating, etc.).
- Motor tension (restless fidgeting, tension headaches, trembling, inability to relax),
- Autonomic over-activity (light headedness, sweating, tachycardia or tachypnea, epigastric discomfort, dizziness, dry mouth, etc.) (ICD-10).

All these symptoms may be found in clients with burnout etiology. GAD is not easy to diagnose given that the overlap with depression and other anxiety disorders (as well as with alcohol or drug abuse) is frequent (Wittchen et al. 1994). In addition, other anxiety disorders, such as agoraphobia (ICD-10 F40) or social phobia (ICD-10 F40.1) should be considered.

Adjustment disorder (ICD-10, F43.2), which may be reflected by prolonged depressive reactions (F43.21) or mixed anxiety and depressive reactions (F43.22), is further frequent diagnosis. Characteristic of an adjustment disorder is that a clear social stressor is responsible for the symptoms observed (Dilling et al. 2008). If changes in the workplace or increased workload can be detected at the beginning of symptom development, according to ICD-10 an adjustment disorder should be diagnosed and treated. The close relationship between job-related burnout and depressive disorders, including adjustment disorders, has been described in detail by Ahola et al. (2005).

5.3.4 Burnout and Sleep Disturbance

Patients with burnout syndrome frequently suffer from sleep disturbance and complain about the lack of the recreational value of their sleep (Rosen et al. 2006). In polysomnographic studies reduced sleep continuity and disturbed sleep architecture with less slow-wave and increased shallow sleep have been found (Melamed et al. 1999; Grossi et al. 2003; Söderström et al. 2004). In addition, increased daytime sleepiness and tiredness were also observed (Ekstedt et al. 2006). Furthermore, not only was burnout associated with disturbed sleep, sleep disturbance has also been identified as a risk factor for burnout syndrome (Sonnenschein et al. 2007). Sleep disturbance can be due to a primary sleep disturbance or is an indicator of a variety of diseases (Blythe et al. 2009; Doghramji 2010). In particular, as sleep disturbance can be an indicator of depression, anxiety, diseases of the chronic fatigue spectrum, and somatic disorders, an intense differential diagnostic process covering all these aspects is required (von Känel 2008).

5.3.5 Chronic Fatigue Syndrome and Related Disorders

Based on the prominent symptom of exhaustion, which belongs to one of the three dimensions of the MBI, burnout can take on the form of chronic fatigue syndrome (CFS, also known as myeloencephalitis) (Kaschka et al. 2011). This disorder has been discussed widely, but is not yet included in the ICD-10 classification. The cause of CFS is still unclear, but it has been linked to mild adrenocortical insufficiency, probably resulting from a viral infection (Glaser and Kiecolt-Glaser 1998; Wessley and Powell 1989). It should be emphasized that in about 50% of patients with CFS major depression is also diagnosed (Afari and Buchwald 2003).

Corresponding ICD-10 psychiatric disorders that are related to CFS are neurasthenia (ICD-10; F48.0) and somatoform disorder (F45), as patients with somatoform disorder present with a variety of somatic complaints, e.g., gastrointestinal, cardiovascular, genitourinary, skin, and pain symptoms.

If the criteria for somatoform disorder or neurasthenia are fulfilled, patients should be diagnosed accordingly.

All symptoms with somatic causes should be thoroughly assessed. In particular, pain is a frequent symptom; thus, all the differential diagnoses of pain (somatic and psychological) should be evaluated. It is important to know that the category of the somatoform disorder (F45) should only be considered if no somatic cause of the symptoms observed could be detected.

Concerning neurasthenia, distressing complaints of feelings of exhaustion after minor mental effort and persistent and distressing complaints of feelings of fatigue and bodily weakness after minor physical effort are present. There is a broad overlap of symptoms, with patients demonstrating a burnout process in the latter stages (Weber and Jaekel-Reinhard 2000). Based on the fact that all the symptoms of tiredness, reduced energy, exhaustion, sleep disturbance, and pain are nonspecific, the exclusion of a physical illness is mandatory. Therefore, systematic somatic examinations, including the assessment of laboratory parameters, should be performed at the beginning of the diagnostic process.

5.3.6 Neurobiological Parameters as Indicators of Burnout

There are a number of different definitions and concepts of stress. In particular, stimulus-related stress concepts and response-related stress concepts can be classified. The stress reaction can be assessed on a physiological or a psychological level (Janke 1974), but symptoms of burnout emerge on a behavioral, phenomenological level. To date, no physiological markers specifically indicating a burnout process have been available. However, the burnout syndrome can be regarded as a phenomenon of stress and stress-related physiological variables can be objectively assessed (see below) (Nil et al. 2010).

In contrast to the stress concept of Selye, who described the stress reaction as a general adaptive syndrome (GAS; Selye 1950), the further development of stress concepts includes personality factors (Janke 1974; Hemmeter 2000), emotions (Henry 1992), and coping styles (Lazarus and Folkman 1984) as intermediate variables responsible for different stress reactions to a given stress stimulus. While Henry's model of stress response relates behavior and emotions (anxiety, depression, aggression) to different biological reactions (adrenaline, cortisol, testosterone), the interaction model of Lazarus focuses on the individual appraisal of stress situations and coping styles. The inclusion of these mediator variables allows a more differentiated and individualized understanding of the stress reaction, with clear implications for an individually adapted therapeutic strategy (Hemmeter 2000).

Only a few studies have assessed physiological responses in burnout patients. In these studies increased morning awakening cortisol levels and increased heart rates have been found (Melamed et al. 1999; Grossi et al. 2003). Pathophysiological reactions may provide an explanation as to why burnout is also closely associated with physical illness, allergic disorders (Honkonen et al. 2006), type II diabetes (Melamed et al. 2006), and hyperlipidemia (Shirom et al. 1997). The somatic comorbidity increases with the severity of the burnout syndrome (Honkonen et al. 2006).

In addition to these indirect hints of a pathophysiological association among burnout, stress, and somatic disorders, the psychobiological mechanisms are extremely unclear and require intense research. In particular, the impact of coping styles and personality factors, including susceptibility to stress, should be examined.

5.4 Therapy of Burnout Symptoms and Depression-Related Disorders

With reference to the above-mentioned assessment, diagnosis, and differential diagnosis of burnout, there is no specific treatment for burnout.

If no ICD-10 diagnosis can be given, because of the lack of symptoms fulfilling the criteria, but symptoms and/or warning signs of a burnout constellation are present, individual symptoms should be evaluated with respect to a burnout constellation and treated (or coached), in order to prevent the progress of the burnout process and the development of clinically manifest disorders.

In general, the treatment of burnout syndrome requires a symptom-oriented approach with respect to somatic complaints and the integration of strategies of occupational psychology and medicine. Therefore, the treatment of burnout syndrome necessitates an interdisciplinary approach, including medical and psychological expertise, as well as social support at work and in the private domain (Weber and Jaekel-Reinhard 2000).

Based on the aforementioned overlap of symptoms and diagnosis, the following treatment recommendations are offered.

5.4.1 Treatment of Sleep Disturbance

Sleep disturbance is frequent in burnout patients (Sonnenschein et al. 2007). Impaired sleep is a risk factor for stress-related disorders, in particular depression (Baglioni et al. 2011), but also for cerebrovascular (Meier-Ewert et al. 2004; Gottlieb et al. 2004) and metabolic disorders (Gottlieb et al. 2005). In addition, sleep disorders are associated with impaired performance and quality of life (Kamel and Gammack 2006). Therefore, sleep disturbances as a primary cause can lead to a burnout symptomatology with exhaustion, tiredness, and reduced performance.

If specific sleep disorders such as sleep apnea, which can intensify under stress, altered nutrition, weight increase, and substance abuse, are ruled out—probably by a polysomnographic assessment—the treatment of sleep disturbance follows an exact pattern, with sleep hygiene and behavioral modification as the first option and hypnotic medication (see below) the second (Riemann et al. 2003; Hemmeter and Thum 2009; Najib 2006). Chronobiological treatments, such as light therapy, may provide some benefit, especially if tiredness and daytime sleepiness are present (Cajochen 2005, 2007).

If nonpharmacological interventions are not sufficient, hypnotic medications can be applied. In this case, for the short-term treatment of sleep disturbance (up to 4 weeks) benzodiazepine hypnotics or—better—benzodiazepine analoga, the so-called Z-drugs (zolpidem or zopiclone) can be applied (Becker 2006; Najib 2006; Hemmeter and Thum 2009).

If the treatment of sleep disturbance is necessary for a longer period, sleep-promoting antidepressants, such as trimipramine, mirtazapine, trazodone, and agomelatine, or sleep-promoting antipsychotics, such as quetiapine, may be applied (Hemmeter 2011).

Treatment with antidepressants is recommended, if symptoms of depression and/or anxiety are present. In all cases, however, pharmacological hypnotic treatment should be performed for the shortest duration and the lowest effective dosage possible.

5.4.2 Daytime Sleepiness

Sleep disturbance as well as depression, neurasthenia, and chronic fatigue syndrome, for example, may be associated with increased daytime sleepiness. Therefore, it is important to know whether daytime sleepiness is the consequence of an existing sleep disturbance or a symptom of depression, neurasthenia or other disorders. In this case, in particular, the primary disorders, such as depression (see below), have to be treated and sleep disturbance has to be corrected. A further psychopharmacological option is the application of stimulating antidepressants or stimulants, such as modafinil, which reduces daytime sleepiness (Beck et al. 2010). In the case of parallel pain symptoms, SSRIs, the SNRI duloxetine or the calcium channel modulating GABAergic substance pregabalin may exert beneficial results (Legros and Bazil 2003).

5.4.3 Treatment of Depression

The main differential diagnosis in the latter stages of the burnout process is depression, probably associated with suicidality (Ahola et al. 2007; Kaschka et al. 2011). In addition, sleep is disturbed in more than 90% of patients with depression (Riemann et al. 2001). If depression is diagnosed the treatment should be performed according the established guidelines for the treatment of depression (e.g., the World Federation of Biological Psychiatry guidelines; Bauer et al. 2007). These recommend psychotherapy for the mild states of depression and psychotherapy combined with antidepressant medication for moderate and severe depression.

Treatment for depression is always an integrative therapy that includes socio- and psychotherapy, as well as antidepressant medication.

Concerning antidepressant medication, different treatment options are available that should be applied according to the symptomatology of the patient within the framework of the current guidelines. A large number of antidepressants within different classes are available (Gründer and Benkert 2011). The choice of treatment should take the criteria of efficiency and side effects into consideration. Currently, the following substances are recommended:

- Selective serotonin reuptake inhibitors (SSRIs)
- Dual-action selective serotonin and noradrenaline reuptake inhibitors (venlafaxine and duloxetine) (SNRIs)
- The noradrenergic and specifically selective serotonergic-acting (NaSSa) antidepressant mirtazapine

All these substances are effective and have no or few anticholinergic side effects compared with the traditional tricyclics (Stahl 2008).

The application of antidepressants in depressed patients with a history of burnout may be of great relevance, as it is well known that antidepressants have the capacity to dampen effects on the major stress hormone system (endocrine system) of the organism, the hypothalamus–pituitary adrenals (HPA-) axis with its peripheral parameter cortisol (Holsboer 2001), and are able to increase the brain-derived neurotrophic factor (BDNF) (Duman et al. 1997). This mechanism leads to the reversal of stress-induced atrophy of the hippocampal neurons (probably reflecting a biological basis for cognitive impairment in depression and burnout) and may therefore be particularly important in stress-related depressive symptoms, especially with cognitive impairment.

The selection of a specific antidepressant is guided by the symptoms of the patient. In the presence of agitation and sleep disturbance a sedative-acting and sleep-promoting antidepressant may be the preferred treatment, such as mirtazapine and others (see above) (Holsboer-Trachsler 2009). However, as atypical symptoms of depression, such as daytime sleepiness, reduced energy, and hypersomnia may also be present in burnout patients, SSRIs, as well as the phytopharmacon St. John's wort, may be more effective than other antidepressants (Murck 2002).

A main pillar of the treatment of burnout-related symptoms and the abovementioned disorders is psychotherapy. For the treatment of depression and anxiety cognitive

behavioral therapy (CBT) is predominantly the preferred treatment, based on the number of evidence-based studies (Voderholzer and Hohagen 2010).

The basic premise of cognitive behavioral therapy is that our thoughts—not external events—affect the way we feel. Therefore, CBT focuses on the correction of the dysfunctional thoughts and beliefs and the dysfunctional behavior that may lead to depression (Beck et al. 1979). In a second step, cognitive therapy is aimed at changing the pessimistic ideas, unrealistic expectations, and critical self-evaluation that create and sustain depression, and at identifying the patient's critical life problems as well as helping to develop positive life goals and a more positive self-assessment. In a third step, problem-solving therapy is aimed at modifying the areas of the person's life that are creating significant stress and contributing to the depression (Beck et al. 1979).

In addition to pharmacotherapy and psychotherapy, adjuvant treatment strategies can be applied. Based on sleep disturbance in depression, the importance of circadian rhythm abnormalities has been recognized. Adjuvant chronobiological strategies, such as sleep deprivation or bright light therapy (in particular in seasonal depression), improve therapy response, at least in subgroups of depressed patients (Wirz-Justice et al. 2009).

If an adjustment disorder with depressive and/or anxiety symptoms is diagnosed, psychotherapy, as described above, is the major treatment.

5.4.4 Treatment of Anxiety Symptoms

If anxiety symptoms are prominent in patients with burnout (Linden and Muschalla 2007), an anxiety disorder, in particular GAD, has to be considered. GAD has to be treated intensively by means of psychotherapy, predominantly CBT and psychopharmacology (Bandelow et al. 2008).

The guidelines of the World Federation of Societies of Biological Psychiatry (WFSBP) of 2008 recommend various treatment options by evidence level A, including antidepressants (SSRIs and SNRIs), the atypical antipsychotic quetiapine, the benzodiazepines diazepam and lorazepam, and the GABAergic substance pregabalin (Bandelow et al. 2008).

The preferred treatment for other anxiety disorders, such as social phobia and agoraphobia, is CBT, whereas pharmacological treatment may be applied only temporarily as an adjunctive treatment.

5.5 Chronic Fatigue Syndrome and Neurasthenia

For chronic fatigue syndrome (CFS) and the related ICD-10 disorders neurasthenia and somatoform disorder, no clear evidence based pharmacological treatment or cure exists. Therefore, treatment has to be symptom-oriented and individually adapted,

focusing on the major symptoms, exhaustion and reduced energy for neurasthenia and pain for somatoform disorder, which both overlap with CFS. According to the recommendations of the National Institute for Health and Clinical Excellence (NICE 2007), CFS should be treated in an ambulatory setting with CBT and increasing activation. In addition, the correction of sleep disturbance—if present—is necessary.

5.5.1 Stress Reduction Strategies

In addition to psychotherapy and psychopharmacological treatments focusing on the reduction of arousal and stress in general, other treatments can be applied, including relaxation techniques such as autogenic training or progressive muscle relaxation (PMR; Golombek 2001), mindfulness-based stress reduction (MBSR; Williams et al. 2007), and the training of emotional competence (TEK; Berking 2010), which are all aimed at decreasing hyper-arousal and stress (Weber and Jaekel-Reinhard 2000). In addition, moderate physical exercise, which has shown beneficial effects in major depression (Dunn et al. 2005), may also help as an additional treatment factor for the improvement of physical stress regulation and coping in burnout.

Furthermore, specific psychotherapeutic strategies focusing on coping successfully with stress (stress management) and/or on the strengthening of self-confidence and self-competence that have been successfully used for the treatment of depression, can be applied (Lambert 2003; Kaluza 2005).

In the case of milder symptoms failing to fulfill the criteria for an ICD-10 diagnosis a break from work—bringing the patient out of the stressful surroundings (time out)—may also be beneficial (von Känel 2008).

5.5.2 Treatment Options Focusing on the Burnout Process as an Etiological Factor

For practitioners it is important to detect and evaluate the specific stress factors at the subject's workplace. Nevertheless, in addition to an individually adapted therapeutic strategy specifically focusing on the circumstances of the potentially stressful environment, the assessment and integration of social factors (Stenlund et al. 2007), and the individual's ability and resources to cope with stress are necessary for successful and lasting therapy. Interventions designed to specifically counteract burnout deal with organization at work, including the reward system, and with strategies that strengthen the individual's coping strategies and resources (Siegrist 1996; Weber and Jaekel-Reinhard 2000). Given the difficulty in separating occupational and non-occupational stress—especially in the later stages of the burnout process—social support not only at work, but also in the private domain, is important (Weber and Jaekel-Reinhard 2000). This implies that support by family members—based on a systemic approach—should be included in the therapy (Burisch 2010).

In summary, burnout comprises a variety of phases, ranging from minor mood disturbance and autonomic dysfunction to psychiatric disorders and somatic diseases. Because of the lack of an established algorithm for diagnosis and the broad overlap of symptoms with other ICD-10 disorders—in particular with depression—burnout is more of a workplace-related social construct than a disease. However, the stress-related development of symptoms is a dynamic ongoing process that has to be interrupted by specific interventions related to the burnout process in addition to established treatments of ICD-10 disorders, such as depression. These interventions should include work-related organizational strategies as well as individual treatments focusing on stress management and the strengthening of self-confidence together with social support at home and in the workplace. These burnout- and stress-related interventions should not only be applied reactively in severe cases, but also in a preventive manner at the appearance of the first warning signs.

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Chapter 6
Burnout Aspects of Physical and Mental Health Conditions

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6.1 Introduction

Burnout is considered to be a huge problem in the professional world (World Health Organization 2008). It is one of the most frequent illnesses among Europeans and Americans next to diabetes and cardiovascular illnesses (Akerstedt 2004; Weber and Jaekel-Reinhard 2000).

Burnout is an English expression that means something that has stopped working owing to energy exhaustion. In the literal sense, this term means "to be exhausted or burned." Burnout syndrome is identified as a form of stress and occurs in the context of social relations, especially among professionals who deal with activities that involve public service or education (Maslach and Leiter 1999). However, Maslach and Leiter (1997) warn that burnout is not exclusively linked to these professions, as almost all professions have some interpersonal contact.

The syndrome is a subjective experience, made up of emotions and negative attitudes with regard to the work and to the persons with whom we interrelate in the workplace. It is a response to chronic work stress, but differs from this kind of stress. The first response involves attitudes and negative behaviors in relation to users, clients, organization, and labor. Thus, it is a subjective experience that involves attitudes and feelings that cause problems of practice and emotional order to the worker and to the organization. The stress concept does not necessarily involve such attitudes: it is a form of personal exhaustion that interferes with an individual's life and not necessarily with their work relationships (Codo 1999).

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We might say that burnout is a type of occupational stress that affects professionals involved in any type of care within a relationship of direct, continuous, and highly emotional attention (Maslach and Jackson 1981; Leiter and Maslach 1988; Maslach 1993). The disseminated burnout definition is based on the social–psychological perspective of Maslach and collaborators, whereas this perspective involves three dimensions: emotional exhaustion, depersonalization, and low personal realization at work.

The syndrome has been considered a social problem of great relevance and is being investigated in several countries, as it is linked to high organizational costs, personnel turnover, absenteeism, productivity and quality problems, the occurrence of serious psychological and physical problems, that might lead workers to become totally incapable of working (Carloto and Câmara 2008).

The risk of *professional exhaustion syndrome* is higher for those who live with the threat of compulsory changes within the work journey and the downturn of the economic situation. Factors connected to social and economic insecurity increase the risk (incidence) of professional exhaustion in all age groups (Ministério da Saúde Brasil 2001).

The Ordinance 1339/99 of the Brazilian Ministry of Health, established in 1999, includes the burnout syndrome or professional exhaustion syndrome in the list of mental and behavioral disorders related to work.

6.2 Physical and Mental Health Conditions

Some frequent physical and mental health conditions are (Melamed et al. 1999; Nakamura et al. 1999; Pruessner et al. 1999; World Health Organization 2008):

1. Muscular or musculoskeletal pain (neck and back)
2. Headaches, migraines
3. Constant fatigue
4. Sleep disorders
5. Gastrointestinal (gastritis to ulcers) and cardiovascular disorders (hypertension, heart attacks, among others)
6. Immunodeficiency with colds or constant gripes, disorders of the skin (rashes, allergies, hair loss, increased white hair)
7. Disorders of the respiratory system (deep breath, bronchitis, asthma)
8. Sexual dysfunctions (decreased sexual desire, dyspareunia/anorgasmia in women, impotence or premature ejaculation in men), menstrual changes in women
9. Substance use

Some initial symptoms of burnout are similar to physical stress, such as neck and back pain, so that it is often becomes difficult to diagnose the syndrome. In the traditional framework of stress there is a personal tiring fatigue that interferes with the individual's life, but not directly with their work, as in burnout (Mendes 2005).

Diagnoses such as burnout, chronic fatigue syndrome, and fibromyalgia represent different ways of reacting to an oppressive situation in the workplace. These diagnoses can form the preliminary stages of diseases such as angina pectoris and myocardial infarction (Anderberg 2001).

In relation to the psyche, lack of concentration, memory changes (evocative and fixation); slowing of thought, feelings of loneliness, impatience, feelings of impotence, emotional lability, low self-esteem, discouragement may arise (Benevides-Pereira 2002; Donatelle and Hawkins 1989; Freudenberger 1974).

There may also be the emergence of aggression, difficulty relaxing and accepting change, loss of initiative; substance use (alcohol, coffee, tobacco, tranquilizers, illicit substances), high-risk behavior and suicide.

Trigo et al. (2007) conducted a review of studies on burnout and its relationship to psychiatric disorders, indicating that the correlation between depression and burnout is still inconclusive.

6.3 Physical and Mental Health Conditions of Brazilian Police Officers

Several studies highlight (Areias and Comandule 2011) the existence of a relationship between stress and risk, particularly in the profession of police officer. When applied to police activity, the burnout might be classified as being a physical, mental, and emotional breakdown, causing police officers to lose personal motivation and to develop negative attitudes in connection to his work.

Due to their attributes, police officers are among a group of professionals who suffer the most stress, as they are constantly exposed to danger, to aggression, and to conflict and tense situations, besides having to maintain a high degree of interpersonal contact. When evaluating 104 professions, Cooper (2005) classified police work as the profession with almost the highest stress index, second only to health professionals.

Media and society pressure, internal standards, negative interactions and individual confrontations, the constant state of alert, and the fear of revenge on the part of individuals who have been arrested or punished through police actions all contribute to the stress level increase in this category (Lima 2002). The profession demands that the police officer is always willing to act in situations that require intervention. The maintenance of such a state of alert creates a stressful situation that is harmful to health, and that propitiates the appearance of pathologies and dysfunctions, such as arterial hypertension, gastroduodenal ulcer, obesity, cancer, and psoriasis, which are among those most frequently studied related to stress (Trigo et al. 2007)

Besides the profession's stress agents, there are pressures concerning the organizational structure, the institutional climate, the working timetable that differs from normal sleep vigilance and social life patterns, resulting in physiological, psychological, and behavioral consequences, which are reflected directly in work performance, in mental health, and finally in the social and familial life. Costa et al.

(2007) emphasized that police officers with burnout tend to employ more often the use of violence against civilians.

Several studies (Tartaglini and Safran 1997) highlight the existence of the relationship between stress and risk, particularly in the police profession, such as anxiety, behavioral disturbances, alcohol abuse, psychic suffering, post-traumatic stress symptoms, and suicide rates.

Our data analyzed in the present chapter are derived from four studies carried out by the Latin American Center for Violence and Health Studies of the Oswaldo Cruz Foundation with civil and military police officers of the State of Rio de Janeiro/Brazil.[1] The analyzed data refer to 914 civil and 931 military police officers, totaling 1,845 professionals who act within operational sectors. Thus, they play a central role in the social production of its corporations and are characterized as highly exposed professionals with a high level of emotional and physical distress.

All the professionals answered anonymous questionnaires regarding life, health and professional risk conditions. The indications for professional distress evaluated in the present chapter incorporate the two dimensions below, and have been considered as such from positive answers to both dimensions.

1. *Presence of psychic suffering* (Self Reported Questionnaire—SRQ-20; Harding et al. 1980), as one of the signs of *emotional exhaustion*. This scale measures the existence of smaller psychiatric disturbances, such as light depression, anxiety, and psychosomatic complaints (headaches, insomnia, among others), it consists of 20 dichotomist questions, where the presence of 7 positive items of the feminine and 8 items of the masculine gender indicates psychic suffering.
2. *Low professional awareness*, measured by police officers' tendency to evaluate themselves negatively in at least two of the following items: degree of satisfaction with his professional awareness (dissatisfied or very dissatisfied); evaluation that his life got worse after entering the police; the belief that in the future working conditions will be worse than at present.

The following is a list of the other variables used according to the topics approached:

Physical health conditions—Scale of chronic diseases, composed of 85 diseases, divided into blocks:

1. Respiratory system problems
2. Heart and circulatory system;
3. Digestive system,
4. Muscle, bones and skin
5. Glands and blood cells

[1] For the Civil Police, data collection was made on different occasions: 2002 in the municipal district of Rio de Janeiro (Minayo and Souza 2003); Minayo et al. 2007 in the interior of the State (Souza et al. 2007), and in 2010 in part of the metropolitan region (*Baixada Fluminense*) (Souza and Constantino 2011). At the Military Police the data collection relating to the municipal district of Rio de Janeiro refers to the year 2006 (Minayo et al. 2008). In some locations a unit sampling (police stations) was performed, in others a survey of all existing police stations was elaborated upon. The data presented in this chapter may not extend to the whole State of Rio de Janeiro; they refer only to the locations investigated and to police officers with operational functions.

6. Nervous system
7. Urinary system
8. Transmissible diseases
9. Vision, hearing, and speech (WHO 2008)

Furthermore, three diseases of the masculine reproductive system and five of the feminine reproductive system are added totaling 93 items.

Quality of life—Community leisure quantified as the capacity to travel during free time, go to the cinema, go for a walk, go to clubs, go to church, practice sports, and meet friends. *Domiciliary leisure* includes free time to read, watch TV, stay at home with the family, stay alone, sleep, and rest. For both variables a point has been attributed for each item; it has been considered "low" leisure when the sum was equal to zero; "average" when situated between 2 and 4 points, and "high" for values ≥5. The *satisfaction degree concerning affective life and life in general*, was quantified by the following response options: very satisfied/satisfied, not satisfied or dissatisfied/very dissatisfied.

Social Support Scale: This scale has 19 items (Sherbourne et al. 1993). The scale of factorial analysis showed that three dimensions are present, thus enabling the grouping into three support dimensions: emotional and information, affective and positive, as well as material interaction (Minayo et al. 2008).

Statistical analysis was performed through the description of frequencies and through the odds ratio (OR), as well as via the confidence interval.

Our data underline the fact that police officers are vulnerable to developing the burnout syndrome.

The analysis results are not discriminated according to the police corporation, as a specific discussion on the different work processes is not the objective of the present chapter. They are presented according to the health conditions and to the quality of life of police officers.

The analysis has shown that 7.1% of civilian and 16.6% of military police officers show symptoms of professional distress ($p < 0.001$), including psychic suffering and low professional awareness. Considering only the psychic suffering, 18.2% of civilian and 39.8% of military police officers show this mental health problem. The predominance of men in both police corporations (13.6 and 1.7% women, $p < 0.001$) should also be highlighted.

Physical health conditions—among the diseases mentioned for over 10% of the operational police officers, it has been stated that only allergic rhinitis is homogeneously distributed among those with and without professional distress (Table 6.1). All other diseases have shown a higher chance of occurrence in those who are more distressed, highlighting the chance of presenting frequent problems with:

1. Neck, dorsal or column pain
2. Frequent indigestion
3. Chronic gastritis
4. Digestive system
5. Muscles, bones, and skin system

Table 6.1 Diseases presented by operational civil and military police officers in the State of Rio de Janeiro/Brazil

Variables (%)	Categories	OR[a]	CI	
Respiratory system				
Sinusitis (21.5%)	Yes	**1.46**	**1.05**	**2.02**
	No	1.00	–	–
Allergic rhinitis (20.4%)	Yes	1.37	0.98	1.91
	No	1.00	–	–
Circulatory system				
Arterial hypertension (13.2%)	Yes	**2.51**	**1.76**	**3.58**
	No	1.00	–	–
Digestive system				
Chronic gastritis (12.3%)	Yes	**3.11**	**2.19**	**4.40**
	No	1.00	–	–
Frequent indigestion (11.6%)	Yes	**3.30**	**2.32**	**4.70**
	No	1.00	–	–
Frequent constipation (10.6%)	Yes	**1.99**	**1.34**	**2.96**
	No	1.00	–	–
Muscle, bone, and skin system				
Frequent neck, dorsal or column pain (40.8%)	Yes	**3.77**	**2.76**	**5.16**
	No	1.00	–	–
Articulation torsion or luxation (21.1%)	Yes	**2.80**	**2.06**	**3.81**
	No	1.00	–	–
Skin allergy, allergic dermatitis, urticaria (15%)	Yes	**1.71**	**1.19**	**2.45**
	No	1.00	–	–
Arthritis or any other type of rheumatism (12%)	Yes	**1.75**	**1.19**	**2.59**
	No	1.00	–	–
Bursitis (10.9%)	Yes	**2.47**	**1.69**	**3.61**
	No	1.00	–	–
Nervous system				
Frequent headaches/migraines (35.3%)	Yes	**3.52**	**2.61**	**4.76**
	No	1.00	–	–
Vision, auditory, and speech				
Vision defect (myopia, astigmatism, eye fatigue, etc.) (40.3%)	Yes	**1.55**	**1.16**	**2.07**
	No	1.00	–	–
Hearing deficiency in one or both ears (14.9%)	Yes	**2.38**	**1.69**	**3.36**
	No	1.00	–	–

[a]OR crude (OR simple). OR that are statistically significant ($p < 0.05$) appear in boldface

Neck, dorsal or column pain, for example, were mentioned by 40.8% of operational police officers, regardless of the presence or absence of professional distress.

In 60.1% of all the investigated diseases (93), there exists a higher chance of occurrence among professionals who present professional distress, compared with those who do not mention it (OR higher than in the first group). Among the diseases most frequently mentioned by police officers are:

1. Pneumonia (prevalence of 3.2% of police officers)
2. Ulcer (6.7%)

Table 6.2 Life quality indicator mentioned by operational civil and military police officers of the State of Rio de Janeiro/Brazil

Variables	Categories	OR[a]	CI	
Community leisure	Low	**2.29**	**1.55**	**3.38**
	Average	1.42	0.98	2.04
	High	1.00	–	–
Domiciliary leisure	Low	1.51	0.81	2.83
	Average	**1.57**	**1.15**	**2.13**
	High	1.00	–	–
Degree of satisfaction with affective life	Satisfied, highly satisfied	1.00	–	–
	Not satisfied, not dissatisfied	**2.52**	**1.67**	**3.80**
	Dissatisfied, highly dissatisfied	**3.50**	**2.17**	**5.63**
Satisfaction degree with life in general	Satisfied, highly satisfied	1.00	–	–
	Not satisfied, not dissatisfied	**4.72**	**3.32**	**6.72**
	Dissatisfied, highly dissatisfied	**14.90**	**9.89**	**22.60**
Social support – emotional and information	Low	**2.82**	**1.92**	**4.13**
	Moderate	1.24	0.81	1.92
	High	1.00	–	–
Social support – affective and positive interaction	Low	**2.39**	**1.77**	**3.22**
	High/moderate	1.00	–	–
Social support – material	Low	**2.15**	**1.59**	**2.90**
	High/moderate	1.00	–	–

[a]OR crude (OR simple). OR that are statistically significant ($p < 0.05$) appear in boldface

3. Hernia (4.9%)
4. Gout (5%)
5. Osteophytosis (6%)
6. Sciatica (5.7%)
7. Spinal disc herniation or pinched nerve (8.1%)
8. Bone fracture (6.9%)
9. Chronic skin disease (3.9%)
10. Anemia (4%)
11. Neuralgias/neuritis (5%)
12. Cystitis/urethritis (5.1%)
13. Kidney stones (5.3%)
14. Sexually transmissible diseases (4.8%)

Quality of life—Police officers with professional distress have 2.29 times the chance of experiencing low community leisure than those without such distress (Table 6.2). With regard to domiciliary leisure, there is a chance that 57% of the professionals with distress experience moderate activity in this area.

The degree of dissatisfaction with life is another aspect that distinguishes professionals: among those with distress there is a higher chance (OR = 3.5) of them declaring themselves dissatisfied or highly dissatisfied with their affective life, or with life in general (OF = 14.9).

Table 6.2 shows that low social support is more common among distressed professionals, in the context of emotional support and information (OR = 2.82), affective support and positive interaction (OR = 2.39), and material support (OR = 2.15).

6.4 Conclusions

As might be stated with regard to the professional category of police officer in the State of Rio de Janeiro/Brazil, a generalized aggravation of the health conditions and quality of life can be observed among those with signs of professional distress, thus indicating that the burnout syndrome should be investigated in more depth within this population,; also, it is necessary to use mechanisms to deal with this health problem in the health system. This has been assessed in several countries worldwide (Kates 2001; Toch 2002; Sanchez-Milla et al. 2001).

As has been extensively commented on in this chapter, some stress factors are inherent to the work of certain professional categories, as is pertinent in the case of police officers. Several international entities (the International Labor Organization [ILO], the World Health Organization [WHO]) draw attention to the need for studies that allow more knowledge on this topic to be accumulated, as well as prevention and intervention strategies. When setting health development targets for the twenty-first century population, the Pan American Health Organization (PAHO) alerts for the necessity of policies that promote workers' quality of life and also mentions that burnout is one of the problems that affect worker's health (http://www.paho.org).

A fact that deserves attention is that several prevention and intervention actions concerning stress and burnout are exclusively directed at individual management (the worker's coping capacity) of the stress condition, through cognitive and behavioral changes, as well as exercise and relaxation. They focus more on the changes the worker makes than on existing working conditions and organization. However, if we have identified in this chapter that the stress factors are related both to individual questions and to aspects of work, actions to prevent burnout and minimize the effects are more efficient if they involve strategies on both levels.

Finally, we emphasize the crucial importance of considering burnout to be a priority for public policy and for society, allowing workers to enjoy a better standard of physical and mental health and to achieve a better quality of work and life.

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Chapter 7
Burnout: Gender Aspects

Shailesh Kumar and Graham Mellsop

7.1 Background

Since the term burnout was first coined by Freudenberger (1974) to describe the emotional exhaustion experienced by workers in the public services, there has been a proliferation of research. The literature on this topic has accumulated and, according to one estimate, over 2,500 publications on burnout had appeared by 1999 (Carson et al. 1999). A search with the keyword "burnout" now yields nearly 10,000 publications on PubMed. It is noteworthy that most of these publications restrict the definition of burnout to human service worker—a trend that acknowledges the unique pressures of using one's self as the "tool" in face-to-face work with needy, sometimes demanding and often troubled, clients (Carson et al. 1999). In such professions contact with people is invariably high and often a source of distress (Maslach et al. 1996). Above all, working in such demanding professional roles with chronic exposure to stressors has been said to lead to burnout (Maslach and Jackson 1986).

Researchers often disagree about the definition, causation, prognosis, prevention, and treatment strategies. An editorial observed "… so it is surprising that despite this passage of time and the resources occupational health psychologists have devoted to its study, burnout still provokes much debate" (Cox et al. 2005, p. 187). In the last three decades several definitions of burnout have emerged (Schaufeli et al. 1993). The two most widely recognized definitions, however, see it as either a three-dimensional (Maslach and Jackson 1986) or alternatively, a unidimensional, construct (Pines and Aronson 1988). The three-dimensional construct requires measures of levels of emotional exhaustion, depersonalization, and low personal accomplishment. The unidimensional model, on the other hand, simply

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describes burnout as "a state of physical, emotional, and mental exhaustion caused by long term involvement in situations that are emotionally demanding" (Pines and Aronson 1988; p. 9). The unidimensional view does not restrict itself to any particular profession (Schaufeli et al. 1993) and hence appeals to investigators of burnout across all working situations.

Not only have controversies reigned about the definition of burnout, but the jury is still out on whether it should be restricted to human services professions or whether it should be broadened to include the whole working population (Cox et al. 2005). There appears to be a growing trend toward broadening the concept of burnout to include all professions (Lindblom et al. 2006). Many general population-based studies on burnout have been conducted recently in different countries, including Finland (Ahola et al. 2006), Sweden (Norlund et al. 2010; Magnusson Hanson et al. 2008), Denmark (Kristensen et al. 2005), and the USA (Campbell and Rothman 2005). According to one general population study from Finland, burnout can be found in a wide range of vocational groups (Ahola et al. 2006). A Swedish study found that the prevalence of burnout was high in the general working population (Norlund et al. 2010). Overall, epidemiological studies of general working populations have assessed the prevalence of burnout to be between 4 and 7% (Schaufeli 2003). The view has also been put forward that up to 7% of working men and 12% of working women reported sufficient work-related stress to make it difficult for them to perform at work or at home (Swedish Work Environment Authority 2008).

This chapter examines how advances in the knowledge of burnout and work stress can be understood and applied, particularly in the context of the female workforce. In order to do that it is necessary to delineate some of the changes that have occurred in the workforce almost in parallel to our understanding of burnout advancing.

7.2 Changing Workforce and Work Environment

Major changes have occurred in working environments around the world in the last few decades. The use of information technology has increased steadily and organization restructuring has become almost the norm. Changes in labor contracts and work-time scheduling have radically transformed the work environment (Sparks et al. 2001). Alongside these changes some significant alterations in the workforce have also occurred, with increasing numbers of older workers, female employees and dual earning couples (Sparks et al. 2001). The impacts of these dramatic changes, the majority of which have occurred in the last 50 years, upon employee wellbeing were reviewed by Sparks et al. (2001). They noted that job insecurity had increased in most countries largely because of progressive restructuring and downsizing. In their review, perception of job insecurity was linked with employee ill health. This trend was further highlighted by a Belgian study of bank workers (De Witte et al. 2010) that looked at the relative strength of associations between objective (continued existence of the job) and subjective (perceived threats to valued job)

aspects of job insecurity with two types of well-being being job-related (job satisfaction and burnout) and general (psychological distress and psychosomatic complaints) as well as health-related behavior (absenteeism and medical consultation). The study found that both real and perceived job insecurity are important stressors.

There is also some evidence to suggest that job insecurity may affect women more than men in today's market economy (Green 2009) as employers tend to invest more in firm-specific jobs and protect their investments with stable jobs—a trend that may lead to the concentration of women in the occupational labor force. Green (2009) has further predicted that gender-based job insecurity differences may be more prevalent in the "coordinated market economies" (such as Denmark, Finland, Norway, Sweden, etc.) and not in the "liberal" market economies (such as Australia, Canada, the UK, Ireland, New Zealand, and the USA). The study found that workers, especially female workers, worried most about their job security in "transitional economies" (Bulgaria, Czech Republic, Hungary Latvia, Poland, etc.) and "developing economies" (Bangladesh, Dominion Republic, Mexico, Philippines, South Africa).

Another development that has occurred in the global workforce is that more and more women are being employed (International Labor Office 2008). It has often been considered that only paid activities equate to "work," which is problematic in an analysis of a subject such as burnout. Women's traditional roles as carers on the home front have not changed at the same pace. A dual role as carer and worker is known to cause significant mental health problems (Field and Bramwell 1998). For many female workers the increase in employment opportunities has led to higher levels of total stress owing to increasing responsibilities at home and at work.

As having both members of couples entering the workforce is becoming more common, interest in how demands of work affect or interfere with home life and vice versa has emerged. Work demands negatively affect private life by creating work/home interference more often than the other way round, i.e., home/work interference (van Hooff et al. 2006). Work/home interference (WHI) has been defined as "*a form of inter role conflict in which the pressures of work and family domains are mutually incompatible so that participation in one role (home) is made more difficult by participation in another role (work)"* (Greenhaus and Beutell 1985, p. 77). WHI may occur in three ways: demands that make it physically impossible to be in two places at the same time (e.g., when long paid hours prevent participation in family activities); from the spill-over of strain from one domain to another (strain build-up at work makes it more difficult to feel relaxed at home); when specific behaviors that are expected at work are incompatible with expected behaviors at home (e.g., teachers acting like teachers and not parents with their own children) (Greenhaus and Beutell 1985).

Furthermore, as the western emphasis on gainful employment for all members of society grows it is important to recognize that sacrifices may often need to be made on the home-front or in terms of worker health. The Effort Recovery Theory states that time demands and work-related strain (two core components of WHI) will have detrimental effects on health when opportunities for recovery between successive effort expenditures are insufficient. Recovery may be insufficient because of quantity

issues (recovery time is too short) or quality (workers are too preoccupied with work matters to relax). Cumulative effects of successive periods of inadequate recovery may lead to a build-up in stress levels causing ill health (van Hooff et al. 2006). In an attempt to address the needs of an increasing number of couples in the workforce organizations have introduced strategies such as flexible work schedules or family-friendly working environments (Sparks et al. 2001). While such strategies may help dual earner couples, their impact on the rest of the workforce is poorly understood.

The increase in the female workforce has not been uniform across all professions. Women are overrepresented in certain areas such as the healthcare sector (Evans and Steptoe 2002). More often they are employed in professions or occupations that fit the stereotype society associates with gender, such as women being better at care-giving, nurturing, administrative, and supportive/administrative roles (Purvanova and Muros 2010). Even in otherwise progressive countries, and as recently as 2008, women have been underrepresented in roles such as managers, computer operators, architects, engineers, scientists, lawyers, judges, dentists, physicians, surgeons, etc. (Bureau of Labor Statistics 2008). There is however a trend that women are competing with men in occupations that have been traditionally male-dominated. A two-way consequence of this trend was examined by Purvanova and Muros (2010) who observed that women in male-type occupations often find themselves in "catch 22" situations: they are criticized for not being sufficiently feminine if they ignore their gender roles or they are criticized for being too feminine or even seductive if they act in accordance with their gender. Being perceived as "token hires," their status as a minority and having to constantly juggle to find the right level of femininity required were cited as distressing for women who work in such environments.

Gender may have some effect on factors that affect advancement in occupations. These variables include perceived competence, personality traits, leadership, etc. (Matlin 2004). A widespread trend exists in favor of a significant wage gap between men and women or women having fewer opportunities to be in senior positions. A report by Catalyst (Mulligan-Ferry et al. 2011), a research organization that tracks advancements of women in business, while reviewing the advancement of Canadian women to corporate leadership stated "in 2010, that women held 17.7% of senior officer positions at Financial Post 500 companies (The Financial Post 500 is an annual listing of the top 500 largest Canadian corporations compiled by The Financial Post), an increase of four-fifths of a percentage point since 2008. In both 2008 and 2010, more than 30% of companies had no women senior officers. Women held just 6.2% of top earner positions at public companies in 2010; in 2008, women held 5.6% of these positions. Finally, while the percentage of public companies with 25% or more women as senior officers increased 7.7 percentage points from 2008, crown (government) companies continue to have the highest representation of women senior officers compared to other types of companies." That review also found that while industry sectors, such as accommodation and food services, had the highest representation of women senior officers and the administrative and support, waste management, and remediation services had the lowest representation.

Such findings, that more women are entering the workforce, but few are advancing in rank, may not be unique to Canada. Educational backgrounds, choice of occupation, culture-specific social roles, and expectation influence the rates of elevation within professions, and are often confounded by economic and political reality, more particularly, by gender (Sulsky and Smith 2005; Maslach and Leiter 2008).

As can be seen from the above description more women have entered the workforce and may have been differentially exposed to stress than men. We argue that for a variety of reasons women may be exposed to or experience higher levels of stress than their male counterparts. Major studies have reported a higher prevalence of negative emotional states such as anxiety and depression in women (Kessler et al. 2005). Mental illnesses characterized by negative emotional states such as depression are commonly reported in women (Mellsop and Smith 2007; Wells et al. 2006).

Burnout can be considered part of a negative emotional state like depression or anxiety. It is an unpleasant state to be in. While some may argue that a significant overlap exists between the two constructs because the symptoms of depression resemble those of burnout, the two are not necessarily the same. Burnout occurs in the context of anger, is situation-specific, affects work, and often spares personal lives. Depression differs on those three issues (Benbow 1998). The relationship between burnout and depression became clearer from a Canadian study that reported a statistically significant correlation between depression and emotional exhaustion ($p < 0.0001$), a weaker correlation between depression and depersonalization, and no correlation between depression and sense of personal accomplishment (Thommasen et al. 2001). Schaufeli and Taris (2005) have argued that burnout should be conceptualized as a work-related phenomenon that manifests as fatigue and withdrawal. The third component of the MBI (Maslach Burnout Inventory), lack of personal accomplishment, was considered by them to be less central to the syndrome. Therefore, despite the significant overlap in symptoms between burnout and depression, most people agree that burnout is distinct because it exists only in relation to the work environment, whereas depression is usually more pervasive. Taking this conceptual framework one can extrapolate that among the working population the prevalence of burnout, or at least emotional exhaustion, will be higher in women. This hypothesis is also backed by some empirical research (Greenglass et al. 1990; Schaufeli and Enzmann 1998; Purvanova and Muros 2010). The factors that may be responsible for a higher prevalence of emotional exhaustion among working women will be examined in detail.

7.2.1 Reporting, Confounding Variables, and Bias

Existing evidence suggests that in general, people assume that women are more susceptible to feeling stressed, are more vulnerable, and more prone to developing burnout (Matlin 2004). Even well trained and skilled clinicians are reported to show such biases, which lead them to diagnose women with depression and anxiety more easily than they do in men, even if both sexes present with similar symptoms

(Lichtenberg et al. 1993; Wrobel 1993; Mellsop and Smith 2007). Gender role theory has been put forward to explain such attitudinal biases and predicts that women are more likely to express feelings of exhaustion than men, whereas men are more likely to report feelings of depersonalization than are women, when faced with chronic stressors (Purvanova and Muros 2010).

But can gender alone affect work stress and burnout, or does it play its role through other confounding variables? One such confounder is age. A study of 600 accountants (Goh et al. 1991) reported the non-significant impact of gender on job satisfaction, but a significant interaction between gender and age for the onset of burnout in the study subjects. Age may therefore need to be considered when interpreting gender differences in job satisfaction or burnout. That study suggested that older men were significantly more satisfied with their jobs than similarly aged women. Factors that influenced the difference could not be identified by this study. In a Finnish study, however, socio-demographic factors such as age did not protect against burnout, but low education level and low social status were reported to carry an increased risk of burnout in women, whereas being single, divorced or widowed increased the risk of burnout for men (Ahola et al. 2006). A Swedish study found that women had a higher level of burnout than men with the most pronounced difference being in the age group 35–44 (Norlund et al. 2010). Both men and women reported a decreased rate of burnout with increasing age. Demand and control at work and job insecurity were variables related to burnout. In women the level of education, socio-economic position, work objectives, and working varying hours were of importance when it came to the prediction of burnout. Interaction effects were found between gender with work objective and gender and working hours. In a multiple regression analysis almost half of the gender difference could be explained by work-related and life situational factors (Norlund et al. 2010). Conducting epidemiological studies in which age and all other confounding factors are matched would be fraught with many practical difficulties. A recent study of psychological distress and burnout levels in women working in Turkish banks reported that women scored higher than men on the emotional exhaustion dimension of burnout. That was also the case for arious measures of psychological distress including somatization, obsessive compulsiveness, depression, anxiety, phobic anxiety, paranoid ideation, and the general symptom index of the Symptom Check List 90 (SCL90). Notably, on the burnout measure younger employees (aged 20–30 years), both men and women, reported less personal accomplishment than their older counterparts (aged 31–40 years) (Bez and Emhan 2011).

7.2.2 Discrimination

Despite the positive changes in attitude in many societies and countries, significant workplace discrimination against women, especially during pregnancy, does exist. Women are known to be dismissed during pregnancy, delayed in advancing through their careers, to be allocated to inferior job roles or responsibilities, to be subjected

to unexpected changes to work hours and to sometimes experience hostility from co-workers (O'Drisscoll et al. 2007). Increasing rates of discrimination against pregnant women have been reported in countries such as the UK, the USA, and Australia (O'Drisscoll et al. 2007). In the US alone, a 40% increase in pregnancy bias complaints was reported over a 10-year period (1997–2007) with a distinct spike reported toward the later phase (Equal Employment Opportunity Commission 2007). Not only do these attitudes affect the morale of female employees there are significant cost implications for the employer and for society as well. According to conservative estimates the cost to employers due to pregnancy-based complaints alone was estimated to be around $US 10.4 million in 2006. Even leaving such physiological issues aside, it is also known that women in management and professional grades are often reported to experience gender-based barriers in career progression (Davidson and Cooper 1984; Rosin and Korabik 1991). Women of childbearing age can be also the most productive age group in the female workforce and therefore the impact of such discriminatory practices on employee morale does need to be taken seriously.

7.2.3 Biological Basis

There may be some biological basis for why the same stressor may cause different responses in men from those in women. Whether or not these differences can lead us to find biological markers for burnout is a different matter. The stress response process is an explanatory model for ill health caused by work stressors. In this model, job stressors (aspects of the work environment) are considered to lead to strain (psychological, physical and behavioral reaction) mediated by perception of the environment. Emotional responses, such as anxiety or frustration, are often the most immediate psychological strain responses that are associated with physiological changes in the body (Spector 1998). Brain pathways such as the hypothalamic–pituitary–adrenocortical axis and the sympathetic adrenomedullary systems are considered to be heavily involved in the relationship between exposure to stressors and health outcomes (Dienstbier 1989; Frankenhaeuser 1991). This relationship was investigated in a meta-analysis (Nixon et al. 2011) that summarized the impact of work stress on eight individual symptoms, including backache, headache, eye strain, sleep disturbance, dizziness, fatigue, appetite, and gastrointestinal problems. This meta-analysis categorized stressor variables, such as interpersonal conflict, lack of control, organizational constraints, role ambiguity, role conflict, workload, working hours, and physical symptoms. It concluded that physical symptoms can be related to a wide range of job stressors and that these relationships persist over time. Although this review did not report on gender differences, a biological basis for stress response was well argued in the paper. On the basis that there is a biological substrate for the stress response process, any differences in variables that affect the response itself are worth investigating. One study (Toker et al. 2005), found that burnout in women was positively associated with micro-inflammation biomarkers;

namely high-sensitivity C-reactive protein (hs-CRP) and fibrinogen concentrations. In contrast, among the men, depression was positively associated with hs-CRP and fibrinogen concentrations, but not burnout or anxiety. The study concluded that the relationship between emotional states such as burnout, depression, and anxiety and micro-inflammation biomarkers was dependent on gender (Toker et al. 2005).

Proving a biological basis for differences in stress response is not easy. If a biological basis determines why exposure to stress leads to different health responses, and many of the relevant stressors may be influenced by gender, then one can argue that men and women may be programmed biologically to respond differently when exposed to stressors. While unequivocally this view seems logical, supportive data are lacking. A systematic review of 31 studies on 38 biomarkers involved in the hypothalamic–pituitary–adrenal axis, autonomic nervous system, immune system, metabolic processes, antioxidant defense, hormones, and sleep found no conclusive biomarkers for burnout. This may be because of limited numbers in comparable studies, differences or variations in the methods used to characterize patients and controls, or to assess biomarkers, incomplete controlling for confounders, and variable operationalization of burnout (Danhof-Pont et al. 2011).

7.2.4 Preconceptions

Differences in attitude can sometimes affect what employees see as desirable self attributes. While confidence and assertiveness are often described as desirable qualities in men, the presence of the same qualities in women has been reported to draw negative reactions such as incongruous evaluations, negative attributions, and subsequent "backlash" (Amanatullah and Morris 2010). Women adopting such cognitive schemata may inhibit their assertiveness, avoid competitiveness and be content with lower outcomes (Amanatullah and Morris 2010). Furthermore, women are often employed to perform different tasks from those assigned to men. This makes it difficult to investigate the relationship between gender and burnout because it would be difficult to categorically establish whether any differences would be because of gender or because of the differences in the nature of the work (Guppy and Rick 1996). Even though men and women may have similar job roles within a given grade, it would be difficult to obtain results that are uncontaminated by role variations.

7.2.5 Attitudinal Issues

In addition to work environment issues, differences in attitudes to workforce involvement may explain differences in work-related absenteeism and ill health. Men are known to be competitive and are often driven by materialistic gains, whereas women reinforce the work ethic and are intrinsically driven (Martin and

Kirkcaldy 1998). Men's positive self image, at least in economically developed cultures, is closely linked to their employment, whereas with women, the equivalent self-image component is often related to their unpaid, mothering, activities. Rosenblatt et al. (1999) found that while men may pay more attention to the mechanics of their jobs and felt more obligated to their work, women enjoy building rewarding interpersonal relationships, focus on work circumstances, look for attractive work hours, interesting work and aim to find a match between who they are as people and the work they do. A Japanese study of resident physicians (Nomura et al. 2010) found that more women chose family as the most important thing in life more often than men. However, compared with men, women physicians were less confident in the majority of competency areas even after adjusting for the number of years of clinical experience (Nomura et al. 2010). A study found that young female employees may have the general feeling of having to prove themselves in the labor market (Bakker et al. 2002). Such gender-based differences in work attitude and values are important because they can influence stress levels or at least the perception of stress.

7.2.6 Response Pattern to Stressors

There are gender-based differences in the perception of, or reactions to, stressors. It is the manner of responding to a stressor that often determines the consequences of the exposure. When faced with a stressor humans may take one of two approaches: problem-focused or emotion-focused (Folkman and Lazarus 1980). In the former, efforts are made to solve the problem in front of us or we try to change a difficult situation. Those who employ emotion-focused strategies do not seek to change the problem or situation. They try to ascribe new meaning to the problem or difficult situation. Their energies are spent on regulating the emotions that are aroused by such situations. Some authors (Lazarus and Folkman 1984) believe that the problem-focused strategy is more adaptive and is a healthier approach because it sets out to eliminate the source of stress and not just to modify our response. This is, however, not a universally accepted position. Some studies have not found any significant relationship between gender and perception of stress (Martocchio and O'Leary 1989), while others have even suggested that taking a problem-focused approach in some situations may in fact increase rather than decrease stress levels (Ashford 1988).

In any event, gender-based differences are reported in these two strategies. Men are reported to use problem-focused coping strategies more than women (Folkman and Lazarus 1980; Hurst and Hurst 1997). Women on the other hand are said to use more emotion-focused strategies (Muhonen and Torkelson 2001; Tamres et al. 2002), although a Japanese study of coping strategies in the general population did not find any gender-based differences between problem-solving strategies, but reported gender-based differences in emotion-focused and avoidant strategies (Nagase et al. 2009). Differences in the way people try to address a problem may therefore dictate the levels of stress they experience and to some extent this may

depend on gender. Critics of this position question the suggestion that gender-based differences exist in coping skills or that women cope in a more passive manner (Long and Cox 2000). Another school of thought believes that because expressing emotion is associated with psychological distress, such behavior is feminine, whereas all behavioral parameters that suppress emotional expression are masculine and show psychological strength (Landrine 1988; Sprock and Yoder 1997). An imbalance between levels of stressors and the constitutional or external resources available to us ultimately decides whether we cope or fall apart when faced with the former.

7.3 How Do Differential Levels of Stress Affect Health in Women?

We have seen from the above description that the proportion of women in many workplaces is increasing and that women are exposed to greater levels of stressors, some internal and some external. But does this difference in exposure lead to difference in health outcomes? Studies have examined differential rates of sickness, absenteeism, and productivity between men and women (Mastekaasa 2000; Vagg et al. 2002). Most developed countries have recorded higher rates of sickness absenteeism in women than in men (Bekker et al. 2005). Mastekaasa (2000) found that the number of sick leave days compensated for under the Norwegian Health Insurance system for women was 1.65 times higher than for men. Some authors have suggested that absence due to sickness in women employees may be age-dependent. For instance, men were more absent among workers aged 55–64 years and women among workers aged 20–54 years (Bliksvær and Helliesen 1997). It could be hypothesized that these findings relate to cumulative workforce years in the men and pregnancy and childcare prioritizing in women.

A similar gender-based differential trend emerges when employees taking short versus long term sickness leave are compared. Women are over-represented in short-term absences (7 days or less) especially in the younger age group (Bekker et al. 2005). Physiological causes (like menstruation) and childcare-related factors are often cited as reasons for higher rates of short-term absences. To explain the trend of younger women taking more short-term sickness-related leave in such terms is however likely to be simplistic. Some compelling evidence has emerged to suggest that job and organizational characteristics might play a role in the higher sickness absence rate of women (Bekker et al. 2005). Women working in female minority occupations seem to suffer more from psychological problems, whereas women do better in male minority occupations (Hunt and Emslie 1998; Evans and Steptoe 2002). According to the Bureau of Labor Statistics data (2008), occupations such as managers, computer operators, architects, engineers, scientists, lawyers, and judges, dentists, physicians, surgeons, police officers, and correctional officers are "female minority," whereas nursing, physician assistants, community and social workers, educators, librarians, telemarketers, customer service representatives,

childcare and elderly care workers, office support workers, paralegals, claim adjusters, accountants, auditors, and food preparation and serving workers are "male minority." This is certain to vary by country and over time.

Many of the indices reviewed above are those with a short-term impact on health. Burnout, however, develops with chronic exposure to stressors. If one accepts that prolonged exposure to workplace stressors leads to burnout then one can also deduce that prevalence of burnout in women may be higher than in men. Indeed, even the authors of one of the most widely recognized constructs of burnout have stated that burnout may be more of a female experience (Maslach et al. 2001). Caution has been expressed about such views being held because they may not only lead to women being discriminated against by employers, but also men, who by extrapolation may be seen as less susceptible to burnout and therefore may not receive appropriate help (Purvanova and Muros 2010).

Specific research evidence about gender and burnout is ambiguous. Some studies have reported a higher prevalence of burnout in women (Bakker et al. 2002; Poulin and Walter 1993), whereas others have reported higher prevalence in men (Van Horn et al. 1997) and that various moderating factors may affect the relationship between burnout and gender. A general consensus does however emerge, that women score higher on the emotional exhaustion component of burnout, whereas men score higher on depersonalization (Schaufeli and Enzmann 1998). It has been suggested that this finding might be explained on the basis of gender role stereotypes of women being more likely to be emotionally responsive and to disclose emotional problems, whereas men tend to depersonalize people and to exhibit negative attitudes (Greenglass et al. 1990).

It does appear that at least some of the higher reported prevalence of burnout in women might be due to the definitions used in the studies. A meta-analysis of gender differences in burnout did find that women scored higher on emotional exhaustion and men on depersonalization scales (Purvanova and Muros 2010). This meta-analysis, which classified world market economies on the basis of having liberal, socially progressive, or socially conservative labor policies (details available from Purvanova and Muros 2010), highlighted the impact of gender on burnout possibly being mediated by a number of variables, such as the type of occupations, i.e., women were more emotionally exhausted if they worked in male-type occupations, whereas more men might be more depersonalized in female-type occupations. The latter trend did not reach statistical significance (Purvanova and Muros 2010). A striking finding from this meta-analysis was that women were more emotionally exhausted than men in the USA, where labor policies were more conservative than in the European Union, where labor policies were progressive (Purvanova and Muros 2010). The differences in emotional exhaustion in Canada and Australia, where labor policies fell in the middle of the conservative/progressive continuum, gender differences in emotional exhaustion scores were small (Purvanova and Muros 2010). The meta-analysis highlighted the significance of considering wider socio-political factors while examining the relationship between gender and burnout.

This argument is strengthened by the findings of a study designed to look at the role of gender-relevant variables. Childcare obligations, job characteristics, and

work attitudes on emotional exhaustion and sickness absence in a study of male and female nurses found that women did not have higher sickness absence rates (Bekker et al. 2005). More importantly, although a gender-based difference appeared in the emotional exhaustion score it was in the opposite direction from that predicted, i.e., men scored higher on emotional exhaustion. As expected for men and women emotional exhaustion had a significant positive effect on sickness absence. This study highlighted that it was not gender but load – workload as well as care load – that predicted emotional exhaustion and thus sickness absence.

7.4 Gender, Burnout, and Therapeutic Considerations

7.4.1 Employment Policies

The usual dictum "prevention is better than cure" applies particularly to burnout. As the numbers of dual-earning couples and women in the workforce have increased, many countries in the world are adopting "family-friendly working conditions." This approach is said to improve staff recruitment and retention (Lo 2003), as well as high levels of employee job commitment and job satisfaction (Brough and O'Driscoll 2005). Taking such an approach may also help in managing workplace stress and modifying attitudes. Developing a family-friendly work environment may shift the focus from whether it is being a woman that increases the risk of burnout, to looking at the need to have a work/life balance. As noted previously, the notion that women by virtue of their gender are predisposed to being stressed and vulnerable to burnout not only disadvantages women, but also men. In reality, it could be the added strain of looking after the family, over and above the usual and sometimes gender-specific workplace strains, that could be responsible for the higher stress levels in female employees. This view was supported by a Dutch study cited previously (Bekker et al. 2005), which found that workload and care load, but not gender, predicted emotional exhaustion. Encouraging family friendly policies will shift the focus from women to where attention needs to be in order to manage stress. There may be fiscal incentives as well to adopt a family-friendly philosophy. Burton (2008) has estimated that the annual cost to Canadian employers due to work/family conflict may be as high as 1.1 billion Canadian dollars.

7.4.2 Stress Reduction Strategies

Differences are reported to exist between men and women about what works for reducing work stress. A study that looked at gender differences in the effect of coping systems on the reduction of burnout in academic staff (van Emmerik 2002) found that a supportive departmental climate and practical assistance reduced

emotional exhaustion for women more than it did for men. Whether this is a finding that can only apply to women in academic positions or can be generalized to all women will need to be tested with well-designed studies. A body of literature on what works for reducing work stress has built up. Broadly speaking these interventions may be applied at an individual or an organizational level. Examples of individual level interventions include counseling or therapy, whereas organizational level interventions address the health and wellbeing of relatively large groups of workers in a uniform way through strategies such as job re-design, training, and education. A recent editorial found that organizational level interventions often fail to achieve the desired results (Cox et al. 2010) and concluded that little progress was being made in intervention research for burnout.

7.4.3 Intervention Strategies for Burnout

It appears that we may be beginning to understand what works against burnout once it sets in, especially work at an individual level. Two excellent systematic reviews have examined strategies that are designed to work for an individual who is experiencing burnout (van Wyk and Pillay-van Wyk 2010; Marine et al. 2006). Stress management programs are often suggested for managing staff burnout. However, the systematic review by van Wyk and Pillay-van Wyk (2010) found no evidence of effectiveness of brief stress management training interventions in reducing job stress. The authors did find limited evidence to support the effectiveness of stress management training of moderate intensity (more than 6 h contact) over 1 month or longer in the short-term reduction of job stress levels, but the beneficial effects diminished without booster sessions. The review found strong evidence to support the effectiveness of intensive, long-term stress management training programs in reducing the job stress and risk of burnout among a wide range of health workers working in a variety of settings. Given this robust and potentially generalizable finding, future researchers may wish to include periodic refresher sessions over an 18-month period to maintain the beneficial effects of stress management interventions.

The systematic review by Marine et al. (2006) grouped intervention strategies against burnout into person-directed (cognitive behavioral therapy, relaxation, music-making, massage, and multi-component programs) and work-directed (attitude change and communication, support from colleagues, participatory problem-solving and decision-making, and changes in work organization). The authors found that there was only limited evidence to support the efficacy of either person- or work-directed intervention strategies in reducing burnout in healthcare workers, but concluded that the benefits of such interventions may be visible for up to 6 months to 2 years. This review highlighted the need for good-quality intervention studies for burnout.

Combining the two systematic reviews, one could conclude that perhaps an intense stress management program with booster sessions delivered over a 2-year period might yield better results for treating burnout in employees.

7.5 Future Recommendations

Energy needs to be invested in creating a positive work environment for women. Applying the Job Demands Resource (JDR) model, which is a concept that has been emerging in the recent literature, to employees in general and women in particular may fulfill this need. JDR brings the well-being and ill health of employees, along with the antecedents and consequences of well-being and ill health, together (Hakanen et al. 2008). This model can be applied to any type of work and categorizes the aspects of the job that affect stress into two groups: job resources and job demands (Hakanen et al. 2008). Job resources refers to the physical, psychological, social, and organizational factors that reduce job demands, assist in achieving work goals, and stimulate personal growth. They do this by enhancing external motivation (necessary for dealing with job demands and achieving goals) and internal motivation (by fulfilling the basic psychological needs of autonomy, belongingness, and competence). Job demands are those aspects of a job that require sustained physical and or psychological effort. The greater the job demand, the greater the strain on workers. Richness in job resources is said to increase work engagement. As we have seen from the description in the preceding sections, gender-based differences may exist in job demands and job resources. Developing our understanding of these differences may enable us to develop targeted policies for prevention and intervention strategies that may work better for women employees.

Similarly, future researchers may wish to investigate what happens when employees are enjoying and deriving pleasure and/or a sense of purpose from their work. We have noted previously that the sources of reward and sense of fulfillment may vary between men and women. Work engagement is a concept that is increasingly used in the occupational health psychology literature (Bakker et al. 2008). Work engagement is a positive attribute and in many ways just the opposite of burnout. It is characterized by vigor, dedication, and absorption, each of which have been operationally defined (Hakanen et al. 2008). High levels of mental energy, persistence, and resilience are considered to characterize vigor, whereas a sense of significance, enthusiasm, inspiration, pride, and challenge characterize dedication. Absorption is characterized by being engrossed in work, which gives rise to the feeling that time at work passes quickly. Learning about factors that enhance vigor, dedication, and absorption among women will help us learn about work engagement among them. It has generally been recognized that engaged workers have high levels of energy and identify strongly with their work (Bakker et al. 2008).

7.6 Conclusion

Definitive understanding of most aspects of burnout in women is lacking. We conclude that there is no consensus on whether burnout is a unidimensional or a multidimensional construct or indeed whether it is profession-specific. The multiplicity

of likely statistical confounders contributes to this, as does the relatively recent history of empirical research. The evolving issue of societal roles of women complicates research and analysis. This issue notwithstanding, it appears likely that in some areas of employment, women are particularly likely to demonstrate burnout and the numbers of women being exposed to identified risk factors for burnout are increasing. It does appear that, compared with men, women may score higher on the emotional exhaustion dimension of burnout and lower on personal accomplishment.

Workplace environment and societal role expectations are central to understanding the genesis of this phenomenon. Rather than fixating on gender-specific vulnerabilities for burnout, perhaps we need to consider the possibility that it could be the "load," i.e., combined effects of work and carer load, that could cause the higher prevalence of stress experienced in female workers. The increased rates of societal evolution are providing fertile soil for these changes. Unsurprisingly, actual workload appears to relate to emotional exhaustion, the central component in burnout, especially in women.

Qualitative research may provide some guidance on how to mitigate these clinical and societal developments. It would be difficult to generalize findings from such qualitative studies with any degree of reliability in the absence of well-designed population-based studies. Individual interventions (therapies) and workplace-based interventions are showing both therapeutic and preventative promise. Family-friendly employment policies rather than female worker-specific stress reduction strategies may be needed as the number of female workers grows globally.

Workplace environment and attendance to peoples' variably distributed needs can be important for prevention and management.

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Chapter 8
Burnout: Risk Factors

Omer Aydemir and Ilkin Icelli

8.1 Introduction

Risk factors are the internal or external causes that increase an individual's chance of developing a disease. Factors that contribute to workplace problems and burnout have been widely discussed over the years (Maslach 2003). Because burnout was originally described in professional or volunteer health caregivers, the effects of providing care to patients and their families have been widely studied (Bakker et al. 2006).

As mentioned in previous chapters, there are three major models for the development of the burnout process. These models imply a causal relationship between the dimensions of burnout. The first one is proposed by Golembiewski and colleagues. In this model, it is suggested that burnout progresses from depersonalization through lack of personal accomplishment to emotional exhaustion (Gil-Monte et al. 1993). The phase model of Golembiewski and colleagues permits the generation of eight logically possible combinations, called phases. The model proposes that the succeeding phases are progressively virulent, from depersonalization to emotional exhaustion. Therefore, individuals with low levels of burnout would tend to report low scores in each of the three subdomains. As the level of burnout increases, the mean score for the subdomain of depersonalization would increase first, followed next by an increase in the score for (lack of) personal accomplishment, and finally by an increase in the subdomain score for emotional exhaustion. At a high level of burnout, the mean scores for all three subdomains would be high (Gryskiewicz and Buttner 1992).

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The second model was developed by Leiter and Maslach and states that burnout progresses from emotional exhaustion through depersonalization to lack of personal accomplishment (Gil-Monte et al. 1998). In this model, chronic high job demands are presumed to trigger emotional exhaustion as an individual stress response. In turn, high levels of emotional exhaustion would lead workers in both contactual professions (i.e., professions in which contact with other people constitutes a major part of the tasks) and noncontactual professions to withdraw themselves psychologically from the people they work with (for contactual professions) and their work (for noncontactual professions) in an attempt to cope with these stressors (Taris et al. 2005).

The third model, developed by Lee and Ashforth, states that emotional exhaustion can be positively related to depersonalization, but personal accomplishment developed independently of depersonalization; rather, they proposed that elevated levels of emotional exhaustion directly evoked decreases in personal accomplishment rather than indirectly through depersonalization (Taris et al. 2005).

Maslach and Leiter (1997) outlined six major influences on burnout:

1. Workload and its intensity, time demands, and complexity.
2. Lack of control of establishing and following day-to-day priorities.
3. Insufficient reward and the accompanying feelings of continually having to do more with less.
4. The feeling of community, in which relationships become impersonal and teamwork is undermined.
5. The absence of fairness, in which trust, openness, and respect are not present.
6. Conflicting values, in which choices that are made by management often conflict with their mission and core values (Ghorpade et al. 2007).

These are all external to the individual with burnout. However, there are individuals working in the same conditions who burn out while others do not. Although the current literature indicates the possibility that stressful aspects of the work environment are more important predictors of burnout than is personality (Maslach and Leiter 1997), it is important for researchers to consider individual variation (Pick and Leiter 1991). Thus, in addition to the factors associated with working conditions and job settings leading to burnout, personal characteristics and factors related to psychosocial features are also taken into consideration. In this chapter the risk factors associated with burnout will be overviewed.

8.2 Environmental Risk Factors for Burnout

The environmental risk factors are the risk factors external to the individual. In terms of environmental risk factors working conditions and job settings are predominantly investigated. When burnout was first described, stress had been regarded as an occupational hazard (Jennings 2008) where both the working conditions, such as interpersonal relationships, work hours, and job settings such as physical labor, daylight are heeded.

8.2.1 Job Settings as Risk Factors for Burnout

Job settings are changing and becoming more difficult as a result of globalization and increasing competition (D'Souza et al. 2003). The combination of high job demands and low control, termed job strain, has been linked to a wide range of mental and physical health outcomes. Maslach and Leiter pointed out risk factors for burnout, which comprise mainly problems of job settings (Maslach and Leiter 1997). In this section, the nature of the organization, such as work overload, insufficient reward, and the role/position of the employee, such as absence of fairness, job insecurity in this organization are evaluated.

8.2.1.1 Work Overload

From the organization's perspective, workload means productivity (Maslach and Leiter 1997). However from the individual's perspective workload means time and energy (Maslach and Leiter 1997). Currently, workload is handled in three ways: work is more intense, it demands more time, and it is more complex. To increase productivity in the organizations, staff members should work with greater effort at the cost of having no break (Maslach and Leiter 1997). Staff members have longer working hours and try to keep up with overwhelming demands (Maslach and Leiter 1997). At the same time staff members take on more roles simultaneously, that is, jobs require multitasking (Maslach and Leiter 1997).

Almost all studies on the effect of working hours on employees' health revealed adverse effects indicating a tendency toward burnout (Tennant 2001). In a study where managerial employees were investigated, work-related stresses such as workload and role ambiguity were found to predict depressive symptoms, which are associated with burnout (Heinisch and Jex 1997). In cancer care workers consisting of physicians, radiographers, nurses, physicists, job stress is predominantly associated with "too much office work," "time pressure," "permanently ringing telephones," and "high physical workload" (Sehlen et al. 2009). In another study with cancer clinicians, "feeling overloaded and its effect on home life" makes the greatest contribution to overall job stress, followed by "having organizational responsibilities and conflicts." Both emotional exhaustion and depersonalization are strongly associated with being overloaded (Ramirez et al. 1995). In Japan, poor working conditions, especially overwork, are strongly related to dissatisfaction and burnout among physicians (Tokuda et al. 2009). In the Physician Work Life study, odds increased by 12–15% for each additional 5 h worked per week over 40 h (McMurray et al. 2000). In another study investigating satisfaction in general internal medicine, burnout is strongly associated with long work hours and work–home interference in both the United States and The Netherlands (Linzer et al. 2001). High volume of work, with inadequate staff to do the job properly, leads to pressure to make deadlines, conflicting demands on time, and disruption of home life as a result of extended work hours (Grunfeld et al. 2000). In terms of risk factors associated with different burnout types, the variables "number of hours worked per week" and "contract

type" showed significance in the adjusted model for the *"frenetic"* ("Frenetic" type burnout refers to a category of subjects that are very involved and ambitious and who overload themselves to fulfill the demands of their jobs) burnout subtype (Montero-Marín et al. 2011). In direct care workers work overload is also associated with burnout (Gray-Stanley and Muramatsu 2011). Vigor (means enthusiasm in this particular study) and exhaustion are not connected, whereas cynicism and dedication are negatively correlated (Makikangas et al. 2011). Furthermore, the risk of acute myocardial infarction is increased by unusually long working hours, even within the year preceding the infarction (Sokejima and Kagamimori 1998).

8.2.1.2 Lack of Control

In professional life, individuals have control over important dimensions of their job by setting priorities for day-to-day work, selecting approaches to doing work, and making decisions about the use of resources in order to keep autonomy and involvement with work (Maslach and Leiter 1997). Dimensions of job control, such as decision authority (i.e., decision latitude concerning one's work pace and phases, and independence from other workers while carrying out tasks) and skill discretion (i.e., the level of cognitive challenges and variety of tasks at work), could contribute differently to health outcomes. Furthermore, predictability on the job (i.e., the clarity of work goals and opportunity to foresee changes and problems at one's work) has been suggested to represent a further component of job control (Vaananen et al. 2008). However, without control, individuals cannot balance their interests with those of the organization (Maslach and Leiter 1997). Inability to anticipate and foresee future changes may have become a particularly salient health risk factor in today's rapidly changing work life. Future-oriented understanding of the whole work process might make one's work more meaningful, decreasing the risk of chronic strain (Vaananen et al. 2008).

Poor work control is strongly related to dissatisfaction and burnout among physicians (Williams and Skinner 2003). In a study of Japanese physicians, poor work control and heavy on-call duty are directly associated with job dissatisfaction and short sleeping time and indirectly associated with burnout and poor mental health (Tokuda et al. 2009). Limited job autonomy is related to emotional exhaustion and reduced interest in tasks or activities (Kowalski et al. 2010). In a study of direct care workers, burnout was significantly associated with low participation in decision-making (Gray-Stanley and Muramatsu 2011).

8.2.1.3 Insufficient Reward

Individuals hope that their jobs bring them the material rewards of money, prestige, and security, but because of the economic crisis, the capacity of the organizations to reward their employees is reduced (Maslach and Leiter 1997). Moreover, employees have to work even harder, even though they get less, in order to keep their job.

This lack of reward causes the loss of intrinsic satisfaction that contributes to the exhaustion, cynicism, and lack of effectiveness that characterize burnout (Maslach and Leiter 1997). In cancer care workers, underpayment is one of the sources of burnout. Moreover, they do not get free time compensation for working long hours, which contributes to burnout (Sehlen et al. 2009).

8.2.1.4 Breakdown of the Community

In a workplace, all the workers constitute a community where members are supposed to be supportive to each other and share the same goals of the organization. Owing to the breakdown of community at work, the personal relationships in an organization are fragmented, and the teamwork is undermined (Maslach and Leiter 1997). Social and organizational support among team members decreases conflicts and increases productivity at work.

Problematic relationships among team members are shown to increase burnout (Demir et al. 2003). In a study of 260 nurses, conflict with physicians was found to be more psychologically damaging than conflict within the nursing profession (Hillhouse and Adler 1997). However, a study exploring verbal abuse among 213 nursing personnel found the most frequent source of abuse was other nurses (Rowe and Sherlock 2005). Families were the second most frequent source of abuse, while physicians ranked third. However, high social support among team members is related to low burnout and low stress (Hillhouse and Adler 1997). Regarding the relationship between staff nurses and nurse managers, supervisor support and quality of supervision is crucial. In a qualitative study of 50 nurses conducted in the UK, managers were identified as a direct cause of stress (Taylor et al. 1999). Group cohesion was higher and job stress lower when nurse managers used a more participative management style (Leveck and Jones 1996). Social resources, such as support from supervisors or colleagues, are associated with low levels of burnout among direct care workers (Devereux et al. 2009). Alexithymic personality features (a personality construct characterized by impoverishment of fantasy, a poor capacity for symbolic thought, and difficulties in experiencing and verbalizing emotions) impair the individuals' capacity to receive and benefit from social support and, on the other hand, make them more vulnerable to interpersonal difficulties at work causing occupational burnout (Mattila et al. 2007).

8.2.1.5 Absence of Fairness

Fairness is an organizational justice where the employees maintain equity between the inputs and receive according to their contribution (Maslach 2003). When an organization acts fairly, it values every person who contributes to its success; it indicates that every individual is important. The three elements of fairness–trust, openness, and respect – are essential to maintaining a person's engagement with work. In contrast, their absence contributes directly to burnout (Maslach and Leiter 1997).

In a study of Nigeria police, perceived workplace fairness was a stronger predictor of emotional exhaustion (Adebayo et al. 2008). Individuals who display a workplace incongruity in the area of fairness developed burnout in time, while those without this incongruity moved toward engagement (Maslach and Leiter 2008).

8.2.1.6 Conflicting Values

Values influence everything about the relationships with work. The primary values guiding customer service are to be efficient, accurate, personal, and adapted to the individual. The current crisis forces organizations to make choices that are inconsistent with their core values and those of its staff members. Thus, customer service values are negatively affected. To some extent there is a mismatch between means and ends because the value clarification process is incomplete. With organizational missions and strategies changing and often conflicting, it is not surprising that people often work at cross-purposes. At the end, a large number of well-intentioned, talented, and dedicated people find themselves stuck (Maslach and Leiter 1997).

8.2.1.7 Job Insecurity

While the crisis in the work environment reduces employment, the labor force is also declining because of the use of automation technology. As a result job insecurity and expected insufficient income threaten all employees (Maslach and Leiter 1997). Insecure jobs were also more likely to be accompanied by lower job control, higher job demands, and poor workplace social support (Cheng et al. 2005). Job insecurity is associated with a deterioration of psychological health (i.e., leading to psychological distress, psychosomatic complaints, psychological withdrawal, and burnout) (Dekker and Schaufeli 1995). In a study of employees of financial institutions in Guateng, job insecurity demonstrated a relationship with increased levels of burnout and decreased levels of organizational commitment and was found to hold predictive value with regard to exhaustion, cynicism, and reduced professional efficacy, as well as reduced affective and normative commitment (Bosman et al. 2005a). Furthermore, negative affectivity interacts with job insecurity to influence the burnout and work engagement of employees (Bosman et al. 2005b). On the contrary, intrinsic motivation is an important factor in the prevention of the breakthrough of the negative cycle of burnout in the context of a decrease in job resources (ten Brummelhuis et al. 2011).

8.2.2 Working Conditions as Risk Factors for Burnout

The physical conditions and environment of the organizations have the potential to directly or indirectly affect the health of the individuals. Working conditions are changing in parallel with the technical improvements (Smith et al. 1999).

Most of the works in the work places are automated and the offices are getting smaller and artificially illuminated. These changes possibly cause adjustment problems.

8.2.2.1 Human–Computer Interaction

Because of the technical improvements in the work settings, human–computer interactions increase and a high level of stress is observed in the automated jobs (Smith et al. 1999). Even though computers make the jobs simpler and less challenging, the production demands can be high, with constant work pressure and few decision-making possibilities (Smith and Carayon 1995). Moreover, the introduction of computers into the workplace was associated with substantial changes in the work processes, social relationships, management style, and the nature and content of job tasks causing job dissatisfaction and distress (Smith et al. 1999). High use of information and communication technology causes mental overload, neglect of other activities and personal needs, time pressure, role conflicts, guilt feelings, social isolation, physical symptoms, worry about electromagnetic radiation, and economic problems. Furthermore, vulnerability, misunderstandings, altered values, and feelings of inadequacy are consequently seen in technology users (Thomée et al. 2010). In companies with low employee participation in the implementation, there is a significant increase in psychosomatic complaints and a significant decrease in job satisfaction after technology implementation. Job satisfaction increases when the work with new technology is diversified and calls for high-skill qualifications, but tends to decrease for employees with low-skill qualifications who are doing monotonous work on a visual display (work in front of computer monitors requiring pursuit, reaction, response of the worker) units (Korunka et al. 1996). Training has the added benefit of enhancing employee self-esteem, and reinforces the employees' confidence in employment stability and their value to the company (Smith et al. 1999).

8.2.2.2 Involvement with People

Freudenberger originally used the concept of burnout itself to characterize the psychological state of volunteers who worked in alternative health care situations. In interpersonally demanding jobs (e.g., emotionally demanding "helper" roles or jobs that deal with people in stressful situations), individuals tend to have less satisfaction with their work and experience burnout (Emanuel et al. 2011). Human service professionals are generally at relatively high risk of burnout. That circumstance is because they are very often confronted with emotionally demanding relationships with the recipients of their care (Schaufeli 2003). Dealing with chronically ill, incurable, or dying patients, with a potential lack of hope, can create burnout (Olkinuora et al. 1990). Caregivers working with victims of violence carry a high risk of suffering from burnout and vicarious traumatization (Pross 2006). In a study of nurses, it is reported that client-related burnout was most closely associated with "conflict with patients," and that either "personal

relationships at the workplace" or "conflict with patients" elevates the score for the other factors, resulting in an increase in client-related burnout (Shimizutani et al. 2008). Furthermore, in a prospective study on burnout, role conflict was negatively associated with client-related burnout after 3 years, as well as emotional demands, demands for hiding emotions, and meaning of work (Borritz et al. 2006).

8.2.2.3 Daylight

Artificial and inadequate illumination is one of the major problems in work settings. Adequate illumination or daylight exposure has positive effects on mood (Terman et al. 1996). Even though no relationship between burnout levels and hours of daylight exposure has been found, an indirect correlation via work stress and job satisfaction can be seen between daylight and burnout (Alimoglu and Donmez 2005). Furthermore, increased medical errors in midwinter compared with fall among nurses are speculated to be caused by darkness via the psychological status (e.g., burnout, work stress and satisfaction) of the nurses (Alimoglu and Donmez 2005).

8.2.2.4 Shift Work

Shift work means providing a round-the-clock service in an occupation, with a cost of causing desynchronization with society's physiological and social rhythms, making the employees' lives monotonous (Jamal and Baba 1997). A significant amount of the labor force is engaged in shift work. In a study on Canadian nurses, shift work is related to psychosomatic health problems, reduced skill use, diminished job satisfaction, loss of intrinsic motivation and absenteeism, but not with burnout (Jamal and Baba 1997). Rotating shift workers are suggested to hold less positive job attitudes, such as job satisfaction, organizational commitment and experience more work–home conflicts (Demerouti et al. 2004). However, emotional exhaustion is observed less frequently than expected (Demerouti et al. 2004). Rotating shift work causes disruption of social life, which deserves attention.

8.2.2.5 Ambient Noise

Noise in the working environment is a source of stress for the workers. Healthcare workers in the emergency rooms or intensive care units are exposed to high levels of ambient noise. Topf and Dillon (1988) found that, for 100 critical care nurses, noise-induced occupational stress was positively related to emotional exhaustion and burnout. However, this noise-induced stress was linked with intrinsic sensitivity to noise. Another survey of 100 critical care nurses found that less commitment to work was significantly linked to greater subjective disturbance due to hospital noise (Topf 1989). Permanent ringing of the telephone is the major source of burnout among cancer care nurses (Sehlen et al. 2009).

8.2.2.6 Overcrowding

Overcrowding is one of the major ambient stressors, especially in job settings like emergency rooms. Overcrowding in emergency departments has significant implications for quality of care, staff burnout and patient and staff satisfaction (Richardson et al. 2005). In a study of Romanian emergency department workers, a high risk of burnout was shown that was linked to high patient flow and emergency department crowding (Popa et al. 2010).

8.3 Individual Risk Factors for Burnout

For any burnout process, knowledge of the individual characteristics implicated in the etiology of burnout is of considerable importance. Although the current literature indicates the possibility that stressful aspects of the work environment are more important predictors of burnout than personality, it is important for researchers to consider individual variation (Pick and Leiter 1991). Reactions to stress can vary depending on the adaptability of individuals or on the coping strategies employed by them, and are therefore quite personal in nature (Shimizutani et al. 2008). Individual characteristics implicated in the etiology of burnout are composed of personality traits, predisposition to psychiatric disorders, and biological susceptibility such as genetic factors or biomarkers.

8.3.1 Personality Traits as Risk Factors for Burnout

Hobfoll (1989) suggested that the way people respond to challenges from their environment can be seen as a function of their personality, constitution, perceptions, and the context in which the stressor occurs. If personality is identified as a resource (Alarcon et al. 2009), individuals with fewer resources are more vulnerable to resource loss and less capable of resource gain (Alarcon et al. 2009). In the explanation of personality predispositions, some personality traits may self-select into highly stressful occupations while some other personality traits may predispose individual employees to experience stressors more intensely (Armon et al. 2011). Personality traits described as being associated with burnout are low levels of hardiness, external locus of control, passive defensive coping styles, low self-esteem, neuroticism (anxiety, hostility, depression, self-consciousness, impulsiveness, vulnerability), type A behavior (competitive, time-pressured, hostile, and with an excessive need for control), introversion, perfectionism, and sensitivity (Gustafsson et al. 2009). Among the personality traits, both neuroticism and the five basic personality factors, also known as the Big Five factors (i.e. extraversion, agreeableness, conscientiousness, emotional stability, and intellect/autonomy), of the personality are the most frequently studied in the burnout literature (Bakker et al. 2006) Even

though most of the personality traits that will be discussed below cause risk in the development of burnout, the other personality traits are associated with resilience.

8.3.1.1 Neuroticism

A tendency to experience negative, distressing emotions and to possess associated behavioral and cognitive traits characterizes neuroticism. Among the traits that classify this dimension are fearfulness, irritability, low self-esteem, social anxiety, poor inhibition of impulses, and helplessness (Costa and McCrae 1987). People high in neuroticism seem to use avoiding and distracting coping strategies, such as denying, wishful thinking, and self-criticism, rather than more approaching strategies, such as problem-solving and proactive behavior (Bakker et al. 2006). According to Langelaan et al. (2006), neuroticism dominates the picture in studies of burnout. Neuroticism moderated the detrimental impact of daily hassles. People with anxiety and neuroticism perceive their work environment as more threatening, with negative emotions due to daily problems (Schneider 2004) and may, for example, react in a highly emotional way in stressful situations (Bakker et al. 2006). Neuroticism and a low degree of extroversion appear to be the most important factors for predicting burnout (Bakker et al. 2006; Gustafsson et al. 2009). Armon and colleagues (2011) reported that the emotional facet of burnout was found to be significantly associated with neuroticism. Neuroticism has been associated with exhaustion (Buhler and Land 2003). In a study of nurses, neuroticism is relatively strongly associated with all scales for burnout, namely personal burnout, work-related burnout, and client-related burnout (Shimizutani et al. 2008). In a study of doctors, it is reported that doctors with greater stress and emotional exhaustion, who were less satisfied with medicine as a career, had higher neuroticism scores (McManus et al. 2004). Those who are highly neurotic are more likely to report feelings of emotional exhaustion, lower levels of personal achievement, and, if healthcare providers, to dehumanize (i.e. removing from a client or patient their special human qualities) their patients (depersonalization) (Bakker et al. 2006).

8.3.1.2 Extraversion

Extraversion is characterized by a tendency to be self-confident, dominant, active, and excitement-seeking. Extroverts show positive emotions, higher frequency and intensity of personal interactions, and a higher need for stimulation. In addition, extraversion is, in general, associated with a tendency to be optimistic and to reappraise problems positively (Bakker et al. 2006). Extraversion is negatively associated with emotional exhaustion (Michielsen et al. 2004). The tendency of extroverts to seek interactions with other people may also counteract processes of depersonalization (Bakker et al. 2006). Indeed, Lingard (2003) reported social extraversion and action extraversion to be negatively associated with cynicism among civil engineers. Bakker and colleagues (2006) have found extraversion to be the most

consistent predictor of burnout in addition to neuroticism. The tendency to engage in intense personal interactions among extroverts may counteract depersonalization, whereas their optimism and self-confidence (Costa and McCrae 1992) are expressed in increased feelings of personal accomplishment. Bakker et al. (2006) also reported that extraversion and agreeableness particularly correlated positively with personal accomplishment when volunteers were confronted with many stressful experiences. Individuals high in extraversion may generally perceive the work environment more positively than do individuals who have a low level of extraversion (Lau et al. 2006). Ghorpade and colleagues (2007) found that emotional exhaustion is negatively related to extraversion and personal accomplishments are positively related to extroversion. However, Gustafsson and colleagues (2009) show that the levels of extroversion are fairly similar in the nonburnout and burnout groups.

8.3.1.3 Agreeableness

Agreeable persons are altruistic, courteous, flexible, cooperative, good-natured, and tolerant (Ghorpade et al. 2007). Agreeableness is the extent to which one is cooperative, caring, trusting, and sympathetic toward others (Costa and McCrae 1992). Agreeable employees are expected to behave in ways that evoke favorable responses from their social environments (Alarcon et al. 2009). Agreeableness correlates negatively with emotional exhaustion and positively with personal accomplishment (Piedmont 1993), and is negatively related to depersonalization (Deary et al. 2003). Because a high level of agreeableness reflects favorable perceptions of people in general, agreeable individuals are unlikely to experience negative responses (e.g. depersonalization) toward people in specific domains, such as the workplace (Alarcon et al. 2009). However, Zellars and colleagues (2000) found an admittedly weak negative relationship between agreeableness and depersonalization and no relationship between agreeableness and the two other burnout variables. Bakker et al. (2006) also reported that extraversion and agreeableness particularly correlated positively with personal accomplishment when volunteers were confronted with many stressful experiences.

8.3.1.4 Openness

Openness reflects the extent to which one desires uniqueness, change, and variety (Costa and McCrae 1992). Individuals high in openness are imaginative, independent thinkers, who are tolerant of ambiguity, and are amenable to new experiences and ideas (Alarcon et al. 2009). Openness to experience has been related to the use of humor as a way of dealing with stress (McCrae and Costa 1986). A modest but significant positive relationship between openness and personal accomplishment has been reported (Deary et al. 1996), and a negative relationship between openness and depersonalization (Zellars et al. 2000). Deary et al. (2003) noted that nurses with more open personalities were more likely to be emotionally exhausted.

The characteristics of nonburnout individuals are described as having a balanced openness and spontaneity toward others without being overwhelmed by feelings and not being over sentimental or sensitive when dealing with the world, whereas openness to changes and anxiety are of importance for inclusion in the burnout group (Gustafsson et al. 2009).

8.3.1.5 Conscientiousness

Conscientiousness is characterized by careful planning, effective organization, and efficient time management, allowing individuals to accomplish more in the time available. Conscientious individuals tend to use proactive, rational, problem-focused coping, further reducing the likelihood of depleting their resources in managing work-related stresses (Armon et al. 2011). Conscientiousness is associated with self-discipline, achievement striving, dutifulness, and competence. Employees with a high level of conscientiousness who are exposed to stressors may actively manipulate their work environments in ways that reduce or eliminate stressful working conditions. Those with a low level of conscientiousness, on the other hand, may engage in few behaviors that actively address such stressors (Alarcon et al. 2009). There is a positive relationship between conscientiousness, and personal accomplishment and depersonalization (Deary et al. 2003; Ghorpade et al. 2007), and a negative relationship between conscientiousness and emotional exhaustion (LePine et al. 2004).

8.3.1.6 Negative Affectivity

Positive affectivity is the general tendency to experience positive emotional states such as happiness, excitement, and energy, whereas negative affectivity is the tendency to experience negative emotional states such as sadness, anxiety, and hostility (Watson et al. 1988). Workers who are high in negative affectivity may be predisposed to perceive their work environment as being unpleasant or stressful (Connolly and Viswesvaran 2000). Indeed, research has found that negative affectivity is negatively related to burnout and that negative affectivity is positively related to perceptions of work stressors (Connolly and Viswesvaran 2000). Workers with a high level of negative affectivity may generally express negative emotions at work (e.g., anger, anxiety), which in turn could evoke unfavorable interpersonal responses from supervisors, coworkers, or customers (Alarcon et al. 2009). Alarcon and colleagues (2009) also reported that positive affectivity and negative affectivity had relatively strong relationships with emotional exhaustion and depersonalization. On the other hand, general self-efficacy and positive affectivity yielded stronger relationships with personal accomplishment. They also suggest that positive affectivity consistently yielded stronger relationships with emotional exhaustion, depersonalization, and reduced personal accomplishment than did extraversion, which means that positive affectivity and extraversion are very different variables.

8.3.1.7 Hardiness

Hardiness is a constellation of personality characteristics that includes commitment, control, and challenge (Kobasa et al. 1982). Hardiness is a personality construct that reflects the extent to which a person is able to endure stressors without experiencing ill effects, such as psychological or physical strains (Kobasa 1979). Hardy individuals tend to believe that they can control the events that happen to them, they generally perceive stressors as challenges rather than as threats, and they have several life domains (e.g., family, friends, religion) that they feel committed to (Alarcon et al. 2009). One of the aspects of personality considered to function as a protective factor is hardiness (Garrosa et al. 2008). Because hardiness influences problem-focused coping strategies, hardy individuals are likely to manipulate or transform their work environments in ways that reduce or eliminate stressors (Alarcon et al. 2009). It is important to find a balance between hardiness and sensitivity in order to avoid burnout (Gustafsson et al. 2009). Hardiness is associated with less demoralization and a greater sense of accomplishment (Emanuel et al. 2005). Alarcon and colleagues (2009) reported that hardiness yielded relatively strong negative relationships with all three dimensions of burnout.

8.3.1.8 Locus of Control

Individuals with an internal locus of control are more likely to approach work stressors with a problem-solving, proactive focus, and adapt to problems, whereas those with an external locus of control were more likely to succumb to the effects of stress. Thus, a significant interaction between an internal locus of control and work stress was found (Koeske and Kirk 1995). The association between locus of control orientation and burnout depended on the degree of participation in decision-making (Gray-Stanley and Muramatsu 2011). Individuals possessing an internal locus of control are more likely to assume situational responsibility and employ problem-solving and other practical coping strategies to cope in positive ways (Koeske and Kirk 1995) when feelings of exclusion or marginalization from the official organizational decision-making processes are experienced (Gray-Stanley and Muramatsu 2011). Locus of control effects depended on the levels of workloads, and was associated with less burnout for workers perceiving lower workload levels. Locus of control lessened burnout when workload was low also suggests limits to internal control resources. An internal locus of control may not be sufficient to counter perceptions of a heavy workload. As a result it is suggested that possessing an internal locus of control orientation can be of value in the workplace (Gray-Stanley and Muramatsu 2011).

8.3.1.9 Alexithymia

Alexithymia is thought to reflect a deficit in the cognitive processing of emotion, and alexithymics are thought to lack the capacity for mental representation of

emotions, and to be unable to regulate emotions and affects (Mattila et al. 2007). It is suggested that alexithymia might have a direct effect on burnout as well as an indirect effect mediated by depression. Since alexithymia is a predictor of adjustment difficulties, it is a predisposing factor to burnout due to inadequate coping with occupational stress (Mattila et al. 2007). Bratis and colleagues (2009) reported that alexithymia and depression are associated with burnout. It is concluded that alexithymic personality features impair the individual's capacity to receive and benefit from social support and, on the other hand, make them more vulnerable to interpersonal difficulties at work.

8.3.1.10 Type A Behavior

The label "Type A behavior" is used to describe a behavioral pattern combining ambition, competitiveness, time urgency, impatience, and hostility (Hallberg et al. 2007). Hallsten and colleagues (2005) describe Type A behavior as an "anxious engagement." Type A behavior has been previously linked to over-achievement in approaching and managing tasks (Hallberg et al. 2007). The Type A construct has two principal dimensions, achievement striving and irritability/impatience (Day and Jreige 2002; Mellam and Espnes 2003). Type A individuals are likely to perceive the work environment negatively, independent of the objective nature of one's job, and to perceive even minor or accidental slights as major injustices, to evoke negative responses from co-workers, and to manipulate their jobs in ways that produce stressors (Alarcon et al. 2009). Theoretically, it is plausible that irritable and impatient behavior increases under pressure. If so, Type A individuals may be "initially" highly engaged in work, but become more irritable and impatient when subjected to work stress. Irritability/impatience may then function as an additional stressor, inducing burnout (Hallberg et al. 2007). Employees who are prone to frequent achievement striving behavior are more likely to be engaged in their work, but they did not report burnout complaints, indicating that achievement striving is a "nontoxic" component of Type A behavior. Irritable and impatient behavior may exhaust one's mental resources and induce emotional exhaustion and cynicism. Irritability/impatience would be negatively associated with work engagement (Hallberg et al. 2007). Autonomy may moderate harmful effects of Type A behavior (Hallberg et al. 2007). Alarcon and colleagues (2009) found that Type A personality was related to personal accomplishment, but unexpectedly it was unrelated to emotional exhaustion and depersonalization, since type A individuals are supposed to include separate dimensions of achievement striving and irritability/anger (Edwards et al. 1990).

8.3.1.11 Type D Behavior/Personality

Individuals with a Type D personality tend to experience increased negative emotions, while at the same time inhibiting these emotions in social situations to avoid rejection or disapproval (Mommersteeg et al. 2012). The negative affectivity

component of the Type D construct was predictive of the emotional exhaustion and personal accomplishment subscales of the Maslach Burnout Inventory in healthcare professionals (Oginska-Bulik 2006). Mommersteeg and colleagues (2012) reported that type D personality was related to higher levels of the burnout subscales exhaustion, depersonalization, and reduced personal accomplishment. The negative affectivity component showed the strongest relation with exhaustion, whereas social inhibition showed no significant relation. When controlling for confounders, the relation among Type D personality, burnout, and disability pension remained, but the relation with sick leave was no longer significant. The social inhibition component of the Type D personality scale has added value in explaining burnout, possibly affecting interpersonal communication. Type D personality precedes both depression and burnout (Mommersteeg et al. 2012).

8.3.1.12 Perfectionism

Perfectionism may be defined as the disposition to regard anything short of perfection as unacceptable. Setting high standards for oneself and the level of concern over making mistakes in performance are the two most important dimensions studied in burnout research. Setting high standards for oneself is the self-directed form of perfectionism, whereas concern over making mistakes is the socially prescribed form of perfectionism. Perfectionism is associated with a higher burnout risk because a perfectionist behavioral pattern drains a person's mental energy and seems to be associated with workaholism (Taris et al. 2010). The effect of concern over mistakes on emotional exhaustion was indeed mediated through workaholism (Taris et al. 2010). The effects of personal characteristics on burnout are about as strong as or even stronger than that of often-studied concepts such as job demands and job control (De Lange et al. 2003). As a result perfectionists are more vulnerable to burnout.

8.3.1.13 Dispositional Optimism

Dispositional optimism is the general tendency to believe that good things will occur in the future and that bad things will not occur. Pessimists may perceive the same stressors as enduring conditions that are unlikely to change, resulting in burnout (Alarcon et al. 2009). Optimists are more likely to engage in behaviors aimed at actively reducing or eliminating work stressors. Optimism is negatively associated with the dimensions of burnout.

8.3.1.14 Proactive Personality

Proactive personality is defined as a person who is relatively unimpeded by situational forces and subsequently alters the environment. Proactive people scan for

opportunities, take action, show initiative, and persevere until they produce change or reach closure or relieve stress. Proactive personality is negatively associated with the dimensions of burnout (Alarcon et al. 2009).

8.3.1.15 Personality Disorders

Even though personality traits are of importance in the comprehension of the burnout process, categorical diagnosis of personality disorders in burnout patients may also be suggestive. Alemany-Martinez and colleagues (2008) reported that narcissistic (meaning that narcissistic individuals arrogantly admire themselves) and borderline personality types are the most frequent ones in "burned out" individuals. They suggest that the need to compete, to rapidly achieve objectives and appreciation for performed work makes individuals more vulnerable to suffering from this syndrome.

8.3.2 Demographical Features as Risk Factors for Burnout

There is a lack of population-based epidemiological studies in the area of burnout because of the nature of the disease. Thus, demographic features observed in studies are often derived from case–control studies that are considered insufficient for generalizability.

8.3.2.1 Gender

Theoretically, men and women are fairly similar in their experience of burnout (Maslach 2003). Women tend to experience more emotional exhaustion, whereas men are more likely to have depersonalized and callous feelings at work (Maslach 2003). It should be kept in mind that there are differences in occupations between men and women. Results from the few population-based studies that do exist show that more women than men suffer from burnout (Norlund et al. 2010). However, gender difference becomes nonsignificant when other factors were taken into account. Also, men had less willingness to admit to fatigue than women (Tokuda et al. 2009). In the Physician Work Life study, women were 1.6 times more likely to report burnout than men (McMurray et al. 2000). The odds increased by 12–15% for each additional 5 h worked per week over 40 h.

8.3.2.2 Age

Burnout is more prevalent in younger age groups (Maslach 2003). One explanation for this finding is that older people have more work experience than younger people.

Another explanation is that the first bout of burnout is likely to happen in the first years of one's career. If people have difficulty in dealing with burnout at this point, they leave their profession entirely or they change their job. Therefore, people who cope well with the strain of the work and who manage to handle the threat of burnout in the early years of their career, stay on to do well in their career (Maslach 2003).

8.3.2.3 Marital Status

Being unmarried is an independent risk factor for burnout (Ramirez et al. 1996). Workers who are single experience burnout the most, while those who are married experience the least. Employees who are divorced generally fall in between these two groups; they are closer to the singles in terms of greater emotional exhaustion, but closer to the married group in terms of lower depersonalization and greater sense of personal accomplishment (Maslach 2003). Female physicians with young children are less likely to experience burnout when they have the support of colleagues, spouses, or significant others in balancing work and home issues (McMurray et al. 2000). The reason why people with families are less vulnerable to burnout is that they tend to be older, more stable, and psychologically mature (having a solid and accurate understanding of social reality, and being more constructive and adaptive in nature). Also, their involvement with their spouse and children makes them more experienced in dealing with interpersonal problems and emotional conflicts. Individuals with children tend to be more realistic and less idealistic about job security, salary, and benefits (Maslach 2003).

8.3.2.4 Education

Nearly all studies on burnout are performed with educated workers in their field. Also, a high degree of emotional exhaustion among providers with post-graduate education is found (Maslach 2003). However, individuals with further training that is oriented toward pragmatic skills are less likely to experience burnout. As stated above, training has the added benefit of enhancing employee self-esteem, and reinforces the employees' confidence in employment stability and their value to the company (Smith et al. 1999). Low education level is an important factor for the level of burnout in women (Norlund et al. 2010).

8.3.3 Neurobiological Features as Risk Factors for Burnout

It is not easy to decide whether neurobiological features, especially biomarkers investigated in burnout studies, are the causes or consequences of burnout. Various biomarkers are studied in work-related stress conditions. Also, there is a need to

perform genetic studies in the field of burnout. Until now, the results of neurobiological studies on burnout, including genetic studies, have been conflicting.

8.3.3.1 Genetic Factors

Even though research on risk factors for burnout has mainly focused on circumstances at work and on personal characteristics, genetic factors have also been studied and attempts have been made to answer the question whether this is due to genetic influences or to environmental factors shared by family members. In a twin-family study, Middeldorp et al. (2006) found that there is familial clustering for burnout due to environmental factors shared by family members, explaining 22% of the variance. Genetic factors do not seem to be of importance. The significant correlation between spouses supports the conclusion that the common environment plays a role in burnout (Middeldorp et al. 2006). Another topic of interest is whether depression and burnout share the same genetic predisposition. In a twin-family study, it was found that both the relations between employment and anxious depression as well as between burnout and anxious depression could be due to overlapping etiological factors (Middeldorp et al. 2006). The search for genetic predisposition for burnout is inconclusive when the research to date is taken into consideration.

8.3.3.2 Biomarkers

Since burnout is a stress state, studies of burnout mainly focus on the release of catecholamines (catecholamines cause general physiological changes that prepare the body for physical activity, such as the fight-or-flight response) in peripheral blood via the autonomous nervous system and the release of cortisol via the hypothalamus–pituitary–adrenal axis (Danhof-Pont et al. 2011). In terms of cortisol (a steroid hormone that is released in response to stress, preparing the organism for coping with stress) studies, there is no difference between patients with burnout and controls with regard to the cortisol awakening response (Danhof-Pont et al. 2011). After administration of dexamethasone (a potent synthetic member of the glucocorticoid class of steroid drugs), no significant difference between patients with burnout and controls were observed with regard to the cortisol awakening response (Danhof-Pont et al. 2011). No differences were found between patients and controls in a fasting blood sample taken between 8:00 and 10:00 a.m. and observations on blood cortisol levels were conflicting (Danhof-Pont et al. 2011). Dehydroepiandrosterone sulfate (DHEAS) is a steroid hormone with an immunomodulatory function that is opposite to cortisol and there was no difference between patients with burnout and controls in terms of blood level of DHEAS in two studies, but in one of the two studies, the saliva level of DHEAS was higher in burnout patients. That is, the evidence was inconclusive for DHEAS studies

(Danhof-Pont et al. 2011). In one study, serum brain-derived neurotrophic factor level was found to be lower in burnout patients (Sertöz et al. 2008). No differences in C-reactive protein (CRP) levels, which rise in response to acute inflammation, were found between burnout cases and controls in two of the three studies, and the gender difference observed in the results remains to be verified (Danhof-Pont et al. 2011). The results for natural killer (NK) cells in burnout were also inconclusive where two studies found no relation between burnout and number of NK cells, and lower NK cell activity was associated only with higher score on depersonalization, not with other dimensions (Danhof-Pont et al. 2011). No overall differences in prolactin level (a hormone that plays a role in lactation and is also a regulator of the immune system) existed between burnout patients and controls (Danhof-Pont et al. 2011). Until now, there have been no convincing data indicating the relationship between biomarkers and burnout.

8.3.4 Psychiatric Disorders as Risk Factors for Burnout

Because there are cross-sectional, instead of longitudinal studies evaluating the relationship between psychiatric disorders, such as depression and post-traumatic stress disorder, and burnout, it is not easy to suggest whether psychiatric disorders are included in the etiology of burnout or not as was, for example, mentioned in Chap. 4.

Most of the time the risk factors for burnout are also risk factors for psychiatric disorders, especially for depression. Thus, comorbidity is always waiting to be ruled out.

8.3.4.1 Depression

Depression is statistically correlated with burnout. The percentage of shared variance between burnout and depression is estimated to be 20% (Iacovides et al. 2003). Individuals who are prone to depression (as indicated by higher scores of neuroticism) are more vulnerable to burnout (Maslach et al. 2001). Therefore, it has been hypothesized that a personal or familial susceptibility to depression may form a risk factor for developing professional burnout (Nyklícek and Pop 2005). A personal history of a depressive episode and family history of depression predicted the emotional exhaustion and, to a lesser extent, cynicism components of burnout, indicating that susceptibility to depression might consist of a risk factor for the development of professional burnout (Nyklícek and Pop 2005). Since work-related stress predicts depressive symptoms and subsequent depression, and personality traits are found to potentiate the association between work stressors and depression, burnout and depression seem to be related. In individual cases, judgment still remains with experienced clinicians using their clinical findings (Tennant 2001).

8.3.4.2 Post-traumatic Stress Disorder

Since burnout is a stress state, individuals may be predisposed to developing work-related psychological disorders, such as symptoms of post-traumatic stress disorder and burnout syndrome (Mealer et al. 2009). In a study of nurses, almost all of those fulfilling the diagnostic criteria for post-traumatic stress disorder were also positive for burnout. Furthermore, Mealer and colleagues (2009) suggested that nurses who have developed post-traumatic stress disorder might represent a subset of those with burnout. It seems that they share the same etiological predisposition.

8.4 Conclusion

A model of burnout, under the proposed perspective, will begin with an examination of the effect of the work situation on burnout. It will then include personality. The final step will culminate in an examination of how work situations interact with personality to affect burnout (Ghorpade et al. 2007).

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Chapter 9
Burnout Internal Factors—Self-esteem and Negative Affectivity in the Workplace: The Mediation Role of Organizational Identification in Times of Job Uncertainty

Andrea Bosco, Manuela Nicoletta di Masi, and Amelia Manuti

9.1 Introduction

Burnout is a multifaceted syndrome associated with negative work characteristics and dysfunctional organization enduring over time. It acts mainly on workers following a development that has elements of invariance, but also a wide inter-individual variability. It has indirect effects on the users/customers of the organization and longer-term negative effects on the organization itself in terms of human and economic costs (e.g., Kivimäki et al. 2003; Mollart et al. 2011). In very simple terms, it can be defined as a condition in which there is a gap between what the workers feel they yield and what the organization and work itself return—not only as pay, but also as perceived social support, identification, and sense of well-being.

Traditionally (e.g., Shirom 2003; Schaufeli 2003; Maslach et al. 2001; Salyers and Bond 2001), it has been stated that burnout syndrome occurs with a feeling of emotional exhaustion (EE) accompanied by negative affectivity, a defensive reaction such as depersonalization (DP), and the emergence of a lack of involvement at work and low personal accomplishment (PA-). These events have negative implications for job performance (AbuAlRub 2004; Halbesleben and Bowler 2007; Moon and

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Hur 2011) and social relationships at the workplace (e.g., Boyas and Wind 2010). Individual factors might play the role of preconditioning on the emergence of burnout, usually triggered by significant environmental, social or organizational changes. This is the case of the contemporary worldwide economic crisis that has had a great impact on the western labor market since the summer of 2007. As a matter of fact, globalization, deregulation, increasing competition from developing countries, and temporary contracts turned out to be very common words in the workplace. At the same time managers in the later part of the last decade were compelled to make decisions on organizational interventions like reorganization, downsizing, and the fusion of companies (e.g., Cazes and Verick 2010).

Recently, it was shown that these interventions, although required, were perceived as threatening by the employees, creating among them a sense of insecurity, weakening their confidence in the company, and hence undermining the sense of identification with it and producing an increase in negative citizenship in the workplace (Iverson and Zatzick 2011; Klehe et al. 2011; Zhao et al. 2010). Moreover, in a recent multicountry study, László et al. (2010) suggested that job insecurity can be significantly associated with an increased risk of reduced physical and mental well-being in most of the countries involved (almost all situated in continental Europe). This result was compatible with those found by Chirumbolo and Areni (2010), Ferrie et al. (2005), D'Souza et al. (2003), Lau and Knardahl (2008), Rugulies et al. (2008), McDonough (2000), and Cheng et al. (2005) documenting the fairly large detrimental effects of job insecurity on health. Nonetheless, the effects of job insecurity on health seemed to be related to individual factors other than age, sex, marital and managerial status, work-related factors, and previous chronic diseases. In particular, László et al. (2010) supported the need to deeply evaluate the global *self-esteem* as a possible variable affecting the investigated association. Following Korman (1970), self-esteem is defined as the degree to which the individual "sees him [her] self as a competent, need-satisfying individual" (p. 32).

In line with the aforementioned issues, the introduction to this chapter portrayed the notion of self-esteem in terms of global—self-based—as well as organization-based dimensions. Afterwards, the contributions of organization to self-esteem as well as the role of organizational self-esteem as a mediation variable will be outlined. Finally, an empirical contribution will be presented and discussed.

9.2 Self-Esteem

After the seminal work of Korman (e.g., 1976) many research articles within the field of work and organizational psychology have focused on employee self-esteem (see Pierce and Gardner 2004 for a review). At the center of these works was the suggestion that an individual's self-esteem, formed around work and organizational experiences, would play a significant role in determining employee motivation, work-related attitudes, and behaviors, i.e., *job performance*. Self-esteem is a global construct that seems quite appropriate for capturing some aspects of the personality

greatly involved in work dynamics. In more general terms the concept of self-esteem refers to an individual's overall self-evaluation of his/her competencies (Rosenberg 1965). Thus, individuals with high self-esteem have a "sense of personal adequacy and a sense of having achieved need satisfaction in the past" (Korman 1966, p. 479).

Another important contribution to the development of the construct of self-esteem in the workplace comes from pioneering research on social identity. At a theoretical level, Tajfel (1978) proposed three components that might contribute to one's social identity: a *cognitive component* (a cognitive awareness of one's membership in a social group—self-categorization), an *evaluative component* (a positive or negative value connotation attached to this group membership—group/organization-based self-esteem), and an *emotional component* (a sense of emotional involvement with the group's affective commitment). Taken together these three components contribute to the explanation of most of the dynamics that characterize the complex Person/Organization relationship, the main ones being social identification (Mael and Ashforth 1992) and self-esteem (Rosenberg 1965, 1989). Later, Pierce et al. (1989) introduced the concept of *organization-based self-esteem* (similarly, Luhtanen and Crocker 1992, suggested the notion of collective self-esteem), which is defined as the degree to which an individual believes him/herself to be capable, significant, and worthy as an *organizational member*.

9.2.1 Social and Organizational Contributions to Self-Esteem

The abovementioned literature paid attention to the notion of self-esteem, essentially focusing on stable characteristics of the self. Nonetheless, the quality of the working experience seemed to play an important role in determining the level of this personality dimension. In line with this suggestion, the literature on the origins of global self-esteem (e.g., Brockner 1988; Franks and Marolla 1976) proposes that organization-based self-esteem is affected by several forces. These determinants can be categorized as:

1. The implicit signals sent by the environmental structures to which one is exposed.
2. Messages sent from significant others in one's social environment.
3. The individual's feelings of efficacy and competence derived from his/her direct and personal experiences. A further major source from which self-esteem emerges are the social messages received and internalized that come from meaningful and significant others (Baumeister et al. 2003 for a review). In this sense an individual's organization-based self-esteem is, in part, a social construction, shaped and molded according to the messages about the self transmitted by role models, teachers, mentors, and those who evaluate the individual's work. Once these messages are internalized and integrated into the person's conceptualization of the self, they become a part of the self-concept. Generally speaking, experiences of success in an organization will bolster an individual's organization-based self-esteem, while the experience of failure will have the opposite effect. Bandura's (1997) self-efficacy concept provides some insight into this relationship. He suggests that the

impact of past performance (e.g., success and/or failure) on self-beliefs depends on the individual's interpretation of that performance and the attributions that are made. Individuals who have successful experiences and who attribute that success to themselves are more likely to experience an increase in self-efficacy, which in turn and over time has an impact on organization-based self-esteem (Gardner and Pierce 1998, 2001; Pierce and Gardner 2009). Similarly, an individual who experiences failure and attributes it to the self will eventually experience a diminution of self-esteem.

9.2.2 Organization-Based Self-Esteem as a Mediating Factor

Several investigators have used organization-based self-esteem to provide insight into how or why certain bi-variate relationships unfold. In most cases organization-based self-esteem is found to mediate relationships between its hypothetical antecedents (such as level of pay, ways of organizing work, promotion of an organization's socialization, leader–follower relationship) and consequences (such as job satisfaction and performance, work attitude, organizational commitment, citizenship in the workplace). It is the case of the empirical evidence shown by Abbott (2000), Lee (2003), Gardner et al. (2000), Riordan et al. (2001) and Aryee et al. (2003). Others have focused on the mediation role of organization-based self-esteem between the employees' perception of their level of influence or of the organization support on organizational commitment as well as job performance. This evidence has been provided by Kostova et al. (1997) and Phillips (2000) respectively. In addition, Heck et al. (2005) investigated the mediating role of organization-based self-esteem of dispositional (i.e., negative affectivity), attitudinal (e.g., job satisfaction), relational (i.e., leader–member exchange), and behavioral (i.e., supervisory performance ratings) antecedents of workplace whining. They found support for the full mediational effects of organization-based self-esteem in each of the proposed relationships, with the exception of partial mediation in the case of performance. Wiesenfeld et al. (2000) provide additional insight into the explanatory role played by organization-based self-esteem in our understanding of the individual–organizational relationship. They hypothesized that organization-based self-esteem would mediate the relationship between perceptions of procedural fairness in the handling of layoffs in a downsizing context and the behaviors needed from managers in times of major organizational change. They found support for full mediation. Adding organizational-based self-esteem to the regression model eliminated the significant relationship between perceived fairness and managerial behaviors.

Finally, Pierce et al. (1993) found significant interaction effects between organization-based self-esteem and role ambiguity, conflicts, overload, work environment support, and supervisory support on achievement satisfaction. Jex and Elacqua (1999) also looked at the role condition–outcome relationship. They observed significant moderating effects of organization-based self-esteem in the relationship between role ambiguity and two stress outcomes: depression and physical strain symptoms. They also observed moderating effects in the relationship between role

conflict and physical symptoms of stress, providing further support for behavioral plasticity. Gardner and Pierce (1998) focused their study on self-esteem and self-efficacy and their respective roles in influencing employee attitudes and behavior. They report observing full mediation effects for organization-based self-esteem in the relationship between generalized self-efficacy and both employee responses. In a more recent replication study, Gardner and Pierce (2001) found a positive relationship between organization-based self-esteem and generalized self-efficacy, satisfaction, commitment, and a negative relationship with intent to quit. Consistent with the study hypotheses, organization-based self-esteem emerged as the strongest self-concept in predicting most of the employee responses.

According to the abovementioned suggestions about the need to investigate in more detail the role of self-esteem in determining mental well-being (László et al. 2010), the aim of this presentation is to highlight the relationship between global (self-based) and organization-based self-esteem as a precursor of the level of negative affectivity in the workplace in an epoch characterized by a deep sense of job uncertainty and management decisions often directed at staff downsizing, ambiguities in the definition of work roles, and insecure job contracts.

9.3 Our Study

The principal aim of the present study was to investigate the role of global (self-based) self-esteem on the emergence of negative affectivity in times of job insecurity, controlling for organizational identification.

9.3.1 Hypotheses

Based upon and extending the empirical evidence taken into account in previous sub-sections of the chapter, the following hypotheses were formulated.

Hypothesis 1: Organization-Based Self-Esteem Predicts job Performance

We intend to confirm that organization-based self-esteem is essentially a job performance predictor. (e.g., Aryee et al. 2003; Van Dyne and Pierce 2003).

Hypothesis 2: Personality Characteristics Influence Affectivity in the Workplace

Specific personality characteristics, such as extraversion (Roesch and Wee 2006; Tosi et al. 2000), provide good bases for the development of positive feelings and behaviors (and against negative feelings, as well) toward the organization (e.g., Barrick and Mount 1991; Tett et al. 1991; Thoms et al. 1996; Barrick et al. 1998; Mohammed and Angell 2003; Van Vianen and De Dreu 2001; Tan and Tan 2008).

Hypothesis 3: Global Self-Esteem Predicts Organization-Based Self-Esteem in a Multi-Faceted way

Global self-efficacy is causally antecedent to organization-based self-esteem (Gardner and Pierce 1998). In the age of a relatively stable job market, global self-esteem has a direct effect on organizational-based self-esteem (e.g., Jex and Elacqua 1999; Tang and Ibrahim 1998; Van Dyne et al. 1990; Vecchio 2000; Borycki et al. 1998; Bowden 2002). Nonetheless, in times of work uncertainty employees (especially those characterized by high global self-esteem) might decrease their loyalty about organization and consequently their level of organizational-based self-esteem (Gossett 2002; Klehe et al. 2011, from a careers' perspective).

Hypothesis 4: Organization-Based Self-Esteem Mediates Global Self-Esteem and Negative Affectivity

Employees tend to have different levels of global self-esteem. Those with lower levels tend to identify with the organization in which they work, but they tend to increase the level of negative affectivity, which is already quite high because of the low individual self-esteem and is amplified by negative feedback in the workplace.

9.3.2 Study Participants and Method

In our study participants were contacted between September 2008 and May 2009. There were 222 participants in the quasi-experimental study, white and blue collar workers employed in 23 micro and small companies in southeastern Italy who had experienced in the past few years managerial decisions (affecting employees) aimed at combating the effect of a financial crisis. The majority of participants were male (65%) and married (74%).

They were asked to fill in a structured questionnaire encompassing socio-demographic and work-related information, measures of personality (Big Five, Global Self-Esteem), measures of identification with the organization (including the size of Organizational-based Self-Esteem Manuti & Bosco 2012) and measures of negative affectivity. Information on job performance was also used as a control measure. The measurements used were: BFO (Caprara et al. 1994); RSES (Rosenberg 1965, 1989; Ellemers et al. 1999; Prezza et al. 1997); POMS (McNair et al. 1991; Van Rijsoort et al. 1999); QPA (Picucci 2009); OSI (Cooper et al. 2002).

9.3.3 Results and Discussion

1. Organization-based self-esteem predicts

Our first hypothesis was that the Organizational Identification (OI) measures are predictive of job performance (in terms of job satisfaction). The higher correlation with job satisfaction was with Self Categorization ($r = 0.39$). OI explained approximately 17% of job satisfaction variance ($F(3, 106) = 7.23$; $p < 0.001$) with a larger, statistically significant, effect due to Self Categorization**.** Consequently, employees with a higher level of OI tended to show a higher level of job satisfaction.

2. Personality characteristics influence affectivity in the workplace
Personality variables may act as protective factors against experiencing negative affectivity. A Single-Factor Principal Component Analysis (accounting for 62% of total variance) was performed and a combined measure of negative affectivity was obtained and used. In a subsequent multiple regression analysis, personality factors explained approximately 27% of variance of negative affectivity ($F(3, 215) = 13.29$; $p < 0.001$). This means that employees with lower Emotional Stability and lower Global Self-esteem showed significantly higher Negative Affectivity.
3. Global self-esteem predicts organization-based self-esteem in a multi-faceted way
A multiple regression analysis confirmed the aforementioned prediction: personality explained 16% of variance of Organization-based Self-Esteem ($F(6, 215) = 6.82$; $p < 0.001$). The hypothesis of an inverse relationship, in times of job uncertainty**,** between different dimensions of self-esteem was confirmed. Nonetheless, it might deserve further investigation.
4. Organization-based self-esteem mediates global self-esteem and negative affectivity
Affectivity and mood might be considered to be causes as well as effects in organizational research (e.g., Weiss and Cropanzano 1996; Fisher and Ashkanasy 2000). In our opinion, it is more likely that organization-based self-esteem is directly connected to the feeling of trust in the organization itself. If the organization fails to be viewed as reliable and trustworthy by the employees, those who persevere in showing a high level of organization-based self-esteem are probably more affected by general negative affectivity, in particular by feelings of anxiety, sadness, confusion, and anger. Nonetheless, negative affectivity was considered either as an outcome or a mediator in the two single-mediator-framework models performed (Baron and Kenny 1986; see also Collins et al. 1998; Shrout and Bolger 2002: Sobel 1982; MacKinnon et al., 2002, for both theoretical and practical power considerations, and Hayes 2009; Preacher and Hayes 2008 for the bootstrap procedure of indirect effects employed here). Organization-based self-esteem is more likely a mediator and negative affectivity an individual outcome ($ab = -0.18$; $Zs = -3.04$; $p < 0.01$; bootstrap 99% CI: -0.26/-0.11). This model seemed to be statistically robust in terms of parametric as well as nonparametric (bootstrap) analysis.

Global self-esteem has a protective effect on the emergence of negative affectivity, and organization-based self-esteem can concur with it, especially in times of relative stability of the labor market (Jex and Elacqua 1999; Tang and Ibrahim 1998; Van Dyne et al. 1990; Vecchio 2000; Borycki et al. 1998; Bowden 2002). Otherwise, in times of work uncertainty, the results of the present study seem to suggest an inverse relationship between global and organizational-based self-esteem in contrasting negative affectivity. In other words, lower levels of global self-esteem together with higher levels of organization-based self-esteem (despite an uncomfortable organization climate), tend to increase the level of negative affectivity.

Hence, lower levels of global self-esteem and more critical personal characteristics (such as low emotional stability and low resilience to stress) could lead to considering the organization as a source of well-being and confidence, even though the organization conveys ambiguous/unworthy messages.

This circumstance may generate the conditions for alienation and consequently the onset of negative affectivity and strain (e.g., Gossett 2002).

9.4 Conclusions

9.4.1 Loyalty of Employees, Levels of Identification with the Organization, and Organization-Based Self-Esteem

As argued by Knudsen (2003), taking inspiration from Simon's Theory of Altruism, the promotion of organizational identification by inspiring organizational pride, loyalty, and values as encouraged by companies has a clear advantage in motivating the employees to actively pursue the targets of the organization. Pride, loyalty, and values associated with being a member of an organization are essential motivating factors for employees along with pay.

9.4.1.1 Organizational Policies

The present study agreed, in general terms, that the *organizational policies* focused on the loyalty of employees directly stimulate the increase in levels of identification with the organization, especially in the form of organization-based self-esteem.

9.4.1.2 Improvements

High levels of identification with the organization produce *improvements* in variables associated with work and the organization such as job attitude, job performance, and job satisfaction (e.g., van Dick et al. 2008).

Nonetheless, a different view on the relationship between organizational identification and job performance or loyalty to the organization is starting to emerge as the effect of temporary contracts and job insecurity (Gossett 2002; Klehe et al. 2011). Actually, feedback that employees receive from the organization in respect of their identification is important for their personal stability. Global self-esteem is a trimmer in the individual–organization's circuit, probably together with other internal factors such as the need for closure: the need for certainty, intolerance of ambiguity, and preference for predictability (Chirumbolo and Areni 2010). As argued by Pierce and Gardner (2004) one attribute of individuals with low self-esteem individuals is that they look for and react to events in their environment, while those with high self-esteem are more confident in their personal qualities and consequently tackle and respond to environmental cues with a lower intensity. "Low self-esteem individuals experience more uncertainty as to the correctness of their thoughts, feelings, and behaviors and thus rely more on external cues to guide them. In addition, they seek acceptance and approval from others through conforming attitudinal and behavioral acts" (p. 596). It is likely that individuals with low self-esteem who avoid losing the acceptance and approval of management tend to increase their sense of identification with the organization. Because of adverse

events, the organization is not able to provide stability to the individuals, who express their discomfort through negative feelings, affects, and mood.

9.4.1.3 Personal Resources

Alternatively, organizations could promote training to strengthen *personal resources* including self-esteem, self-efficacy, and assertiveness (e.g., Awa et al. 2010; Scarnera et al. 2009).

The enhancement of personal/work unrelated resources in the workplace might be much more useful for employees, especially in times characterized by poor employment stability. In our view, employees can generally understand that a crisis generates contraction of the workforce. However, they might find it more difficult to tolerate the organization asking them to be devoted and to identify with it, even in a climate of job uncertainty. Those suffering more from this circumstance in terms of negative affects and, probably, in terms of health risks, are employees characterized by a low sense of self-efficacy and self-esteem continuing to invest in the organization all their personal efforts.

9.4.2 The Promotion of a Supportive Work Environment

In order to mitigate the direct effect of negative affectivity on employees in the workplace as well as the indirect effects on the organization itself in terms of a probable departure from the corporate mission and an increase in human and economic costs (e.g., Kivimäki et al. 2003; Mollart et al. 2011), it might be appropriate for HR managements:

1. To delay the promotion of the identification with the organization (e.g., Gossett 2002).
2. To bring forward the strengthening of self-esteem, self-efficacy, and assertiveness of employees in order to stimulate their resilience as after a self-esteem threat (vanDellen et al. 2011 for a review).
3. Offering them vocational training courses to be spent directly in anticipation of a future search for a new job (see Fig. 9.1).

At the same time, interventions aimed at improving the work–life balance (e.g., Sorensen et al. 2011) might be very useful given that they benefitted the individual in a broad sense rather than exclusively as a "worker." These approaches, aimed at potentiating "persons" rather than "roles," facilitate the realization of reciprocity between employee and organization. The enhancement of these resources could be targeted with a long-term reduction of negative emotions and mood, protecting the employees and the companies from their effects such as absenteeism due to sickness, sneaky turnover intention, and negative citizenship in the workplace (e.g., George & Jones 1996).

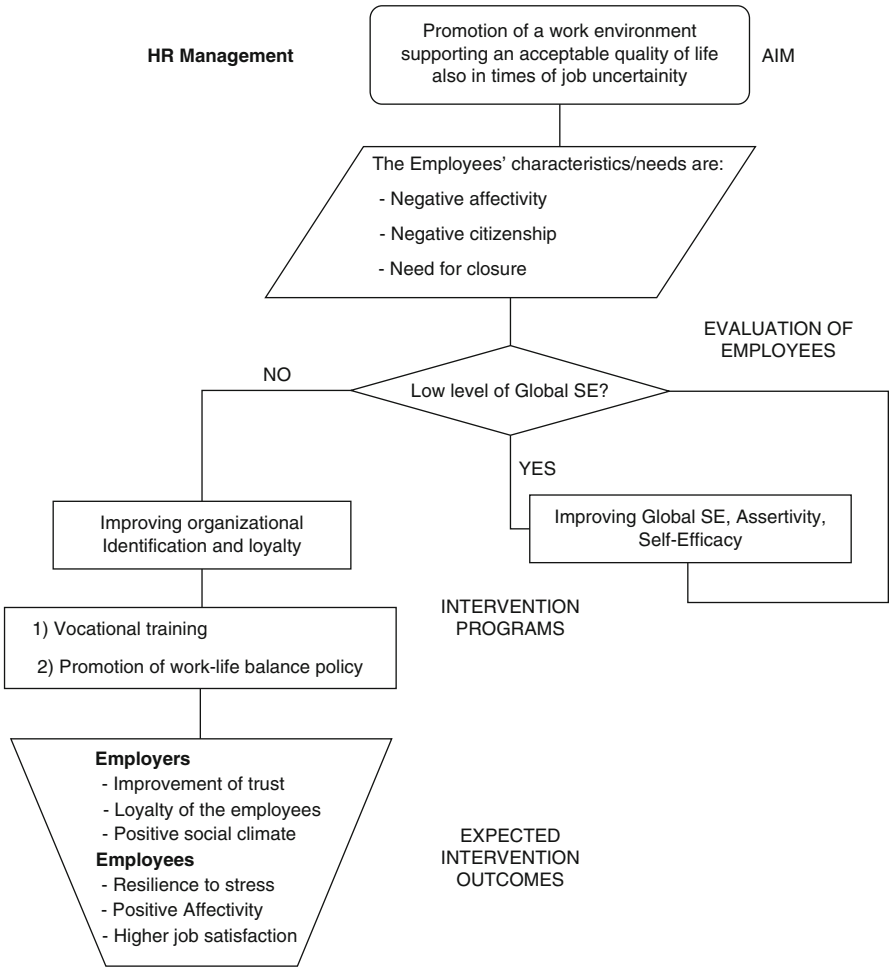

Fig. 9.1 Chart of an evaluation–intervention program aimed at protecting employees/employers from the direct and indirect effect of negative affectivity in the workplace

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Chapter 10
Emotional Exhaustion and Psychosocial Work Factors

Minna Helkavaara

10.1 Introduction

The structure of age groups in western countries will change in the future. Birth rates are declining, which results in a situation where the number of older people is growing while the number of younger people is decreasing. This structure of society will be reflected in working life. In the future, people will have to work longer.

Even though the lifespan has grown and people stay healthier to an older age, there is still a huge number of people who leave working life before the retirement age. There are many reasons for this, personal as well as medical, but one reason for the untimely termination of employment is burnout. One of our challenges in the future will be how to prevent burnout and improve employees' well-being.

Burnout develops as a prolonged response to long-term emotional and interpersonal stressors, which appear repeatedly in the employees' work environment. Burnout is a syndrome that is characterized by three dimensions. These dimensions are emotional exhaustion, cynicism, and reduced personal accomplishment (Maslach et al. 2001). Exhaustion represents the strain dimension of burnout. It refers to feelings of being overextended and depleted of one's emotional as well as physical resources. Cynicism represents the interpersonal context dimension of burnout and it refers to a negative attitude toward work and toward the recipients of one's service. Professional inefficacy represents a self-evaluation dimension of burnout and it refers to feelings of insufficiency and lack of competence at work (Maslach and Leiter 2008). It is widely agreed that burnout develops gradually and that emotional exhaustion is the core dimension of burnout. Exhaustion has synchronous associations with cynicism, whereas reduced personal accomplishment has more complex associations with the two other dimensions of burnout. In some studies personal

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accomplishment is rather an independent dimension of burnout, but in others it has direct associations with exhaustion and cynicism (Golembiewski et al. 1986; Lee and Ashforth 1996; Maslach and Leiter 2008; Taris et al. 2005).

When considering the development of burnout, it is also relevant to consider gender differences. The onset of burnout can be different for men and women and the early signs of burnout can differ too (Maslach and Leiter 2008). Several studies have found that women experience slightly more emotional exhaustion than men, whereas men are more cynical than women (Purvanova and Muros 2010; Lindeberg et al. 2011; Houkes et al. 2011).

It is significant to identify early signs of burnout and add to our knowledge about the factors that may contribute to burnout among employees. As exhaustion is the key component of burnout, it is vital to understand which factors in the work environment might promote exhaustion. The central aim of this chapter is to analyze associations between emotional exhaustion and the psychosocial work environment. In this chapter the author will refer to the findings of some of the studies that are related to the psychosocial work environment and emotional exhaustion. In these studies the study population consists of middle-aged employees. The ages of the subjects vary between 35 and 65 in the most of the studies. Younger age groups are included only in studies defining the phenomenon of bullying in the workplace. These studies include the age group 18–34 years. In studies on the association between bullying and employees' health the mean age of the study population varies from 40 to 50 years.

10.2 Psychosocial Work Environment

Karasek (1979) has described two key components of the psychosocial work environment. These two components are job demands and job decision latitude. Job demands act as a psychological stressor at work, while decision latitude focuses on the employee's decision authority and skill discretion. According to Karasek's job strain model, jobs can be classified into four types:

1. High-strain jobs, where the demands of the job are high and the employee's decision latitude is low. These are the highest-risk jobs for psychological strain and physical illness.
2. Active jobs, where the demands of the job are high and the employee's control over the job is high. Active jobs can be demanding, but employees have control over the tasks and the autonomy to use the skills that are needed. These jobs are associated with only an average level of psychological strain.
3. Low-strain jobs, where the demands of the job are low and the decision latitude is high. The employee has a high level of authority relative to the strain level, which allows the employee to respond optimally to the job's challenges.
4. Passive jobs, where the demands are low and the decision latitude is low. These jobs are associated with only an average level of psychological strain and physical illness.

Active jobs are optimal for the employee's motivation, learning, and engagement. According to several studies, high-strain jobs with high demands and low decision latitude are prospective risk factors for common mental health disorders, i.e., mild to moderate depression and anxiety disorders (Stansfeld and Candy 2006), as well as for emotional exhaustion (de Jonge et al. 2000; Lindeberg et al. 2011).

Many studies have used the job strain model, as described above with the four stress categories. When these two key components, job demands and job control, have been examined separately, it has been found that job demands are associated with high levels of emotional exhaustion (Demerouti et al. 2001; Jourdain and Chênevert 2010), whereas associations between emotional exhaustion and job control have been found to be weaker and more complicated (de Jonge et al. 2000).

Karasek's job demand–control model has also been criticized because it does not take into account the social context of the workplace. Johnson and Hall (1988) added a third dimension to this model known as occupational social support. This third dimension was added after it had been noted that support received from supervisors or colleagues acted as a buffer against the harmful effects of high job demands and low job control (Johnson and Hall 1988; Karasek and Theorell 1990). This job demand–control–support model is also known as the "iso-strain" model. Lindeberg et al. (2011) measured the independent associations of high job demands, low job control, and low social support as emotional exhaustion. Of the three dimensions studied, low social support had the strongest independent association with emotional exhaustion among men and women (Lindeberg et al. 2011).

In our study (Helkavaara et al. 2011), we examined the associations between each of the three psychosocial work factors (job decision latitude, organizational justice, and the presence of bullying in the workplace) and emotional exhaustion. The participants in the study were employees of the City of Helsinki, which is the biggest employer in Finland, with nearly 40,000 employees. The age of the participants ranged from 40 to 60 years. Participants completed the Emotional Exhaustion Subscale of the Maslach Burnout Inventory (MBI) (Maslach and Jackson 1981) and the job control dimension from Karasek's (1979) demand–control model. Organizational justice was measured using two subscales. These subscales measured relational and procedural justice. One question asked whether the employee had observed bullying in the workplace. The questionnaire also included 18 questions measuring physical work factors.

First, we calculated the prevalence data for emotional exhaustion with independent variables, which were age, occupational classes, job control, organizational justice, and observing bullying in the workplace. Second, we used logistic regression analysis to examine the association between psychosocial work factors as well as other independent variables and emotional exhaustion. We conducted all analyses separately for men and women. Among women, job control had the weakest association with emotional exhaustion when all three psychosocial work factors were mutually adjusted. Among men, job control lost its significance after mutual adjustment for the three psychosocial work factors, and our results suggested that low job decision latitude is interrelated with the other two psychosocial

work factors, organizational injustice and the presence of bullying in the workplace. This is in line with previous studies in which it was found that job control affects job strain through justice evaluations (Elovainio et al. 2001). A high level of job control seems to indicate more favorable evaluations of procedural and relational justice. This, in turn, mediates the influence on health (Elovainio et al. 2001). Our results also suggested that the predictive value of job control for exhaustion among men is not as strong as it is, for example, for coronary heart disease. Associations between low job decision latitude and risks of coronary heart disease have been established in several studies (e.g., Theorell and Karasek 1996; Bosma et al. 1998). Low job control was a risk factor for emotional exhaustion only among women. Of the three psychosocial work factors studied it was the weakest for both genders (Helkavaara et al. 2011).

10.3 Organizational Justice

Organizational justice refers to the fairness of employee treatment by an organizational system (Elovainio et al. 2009) and is relevant when employees determine whether or not they have been treated fairly in their jobs and in other work-related variables. Four sources of organizational justice are acknowledged:

1. Procedural justice refers to the fairness of the decision-making procedures within the organization.
2. Distributive justice relates to the outcome for the employee and to the fairness of the outcome compared with the input of the employee.
3. Interpersonal justice refers to the fairness of the treatment of the employee by the supervisors.
4. Informational justice focuses on the information given to the employee about why certain procedures were followed (Colquitt et al. 2001).

There has been discussion about the dimensionality of organizational justice. In this chapter studies are presented that have used organizational justice scales with four dimensions, with two dimensions or a combined scale.

It has been argued that fairness confirms a employee's self-worth and communicates respect for the employee (Maslach et al. 2001). Lack of justice is associated with low self-esteem and social isolation (Tyler et al. 1996). Fair and respectful treatment by the authorities communicates feelings of pride and respect in return. These feelings are in turn related to self-esteem, feelings of obligation to the authorities, and a willingness to help the group beyond what is required (Tyler et al. 1996).

Recent studies have established that organizational justice is not only associated with emotions and behavior, it is also associated with employees' health. Kivimäki et al. (2004) found that low relational justice predicted decreasing health among male and female employees. Low relational justice was also associated with long spells of sick leave among both genders. Especially among women, relational injustice seemed to be a strong predictor of long sick leave (Head et al. 2007).

Among men, low organizational justice was clearly associated with chronic pain (Saastamoinen et al. 2009). Organizational injustice may also intensify the effect of poor health on the retirement intentions of middle-aged employees (Heponiemi et al. 2008).

Disturbed sleep is a marker of prolonged stress, which is suggested to be a common indicator of prolonged negative emotional states and related physiological changes (Espie 2002). In a longitudinal study, long-term exposure to low organizational justice predicted sleeping problems even 10–16 years later among men and women (Elovainio et al. 2009). Exposure to organizational justice was measured at two time-points and sleep problems were measured at three time-points, which enabled a prospective study of the long-term effects of organizational justice on sleep problems to be conducted. Other potential confounders in the relationship between perceived organizational injustice and sleep problems are depressive symptoms and obesity. These potential confounders were also adjusted for, but they did not help to explain the justice effect (Elovainio et al. 2009).

A lack of justice is associated with burnout in two ways. First, a lack of fair treatment is emotionally upsetting and exhausting. Second, the unfair treatment accelerates feelings of cynicism about the workplace (Maslach et al. 2001). Cynicism refers to distancing, negative or insensitive responses to the various aspects of the job (Maslach et al. 2001; Maslach and Leiter 2008).

In our study, low organizational justice was strongly associated with emotional exhaustion (Helkavaara et al. 2011). Maslach and Leiter (2008) found that organizational justice is a key factor in predicting future burnout in employees.

Based on previous studies, organizational justice and fair treatment of employees are central to planning ways of promoting employees' health. However, it is important to notice that organizational justice is quite a novel psychosocial work factor in health research and it is obvious that more studies on this issue are needed. It is important to study organizational justice within a broader framework of psychosocial work factors (Sutinen et al. 2002; Helkavaara et al. 2011) and more longitudinal settings are also needed (Maslach and Leiter 2008).

10.4 Bullying in the Workplace

Workplace bullying is a severe problem in organizations. The prevalence of bullying depends on the definition of bullying and on the study population, but studies from different countries show that workplace bullying is a prevalent problem in different organizations all around the world (Zapf et al. 2003). Based on studies from European countries it is possible to estimate that about 5–10 % of the working population is subjected to workplace bullying (Kivimäki et al. 2000; Vartia 2001; Ortega et al. 2009; Niedhammer et al. 2009).

There is no generally accepted definition of workplace bullying, but it is commonly agreed that workplace bullying refers to situations in which the individual (or a few individuals) is subjected to frequent and long-lasting hostile acts, unethical

communication like rumors, threats or persistent criticism, and behavior that is annoying and oppressing. The individual is pushed into a defenseless position and is held there by continuous bullying or mobbing activities (Leymann 1996). Workplace bullying by colleagues may include for example isolating and ignoring the individual, laughing and gossiping about the individual's personal matters, and refusing to talk or listen to the individual. Management may bully by giving the individual meaningless work tasks or by not giving any work tasks at all, by attacking the individual verbally regarding work tasks, or by silencing the individual or forbidding the individual to talk to others. Bullying may also include verbal and physical threats, physical attacks, and sexual harassment (Leymann 1996). This definition of bullying excludes temporary work conflicts (Leymann 1996). A salient point when defining workplace bullying is the frequency and duration of the acts.

It has been argued that serious interpersonal problems at work could have more serious and negative consequences for an individual compared with the same kind of problems outside of work (Bolger et al. 1989). Recent studies have shown that bullying is associated with many kinds of problems with employees' well-being. Bullying has been found to be associated with psychosomatic complaints and somatic symptoms (Zapf et al. 1996; Niedl 1996), sleep disturbances (Niedhammer et al. 2009), and depressive symptoms (Niedhammer et al. 2006). Bullying has also been found to be associated with an increase in sick leave (Kivimäki et al. 2000), and to be more strongly associated with medically certified sick leave than with self-certified absence. It has been suggested that medically certified sick leave might be a more accurate measure of employees' health than self-certified sick leave. Self-certified sick leave may also reflect voluntary absenteeism, especially in shorter spells of sick leave, where the influence of work satisfaction is an important factor in sick leave, as well as employees' health status (Marmot et al. 1995; Hensing et al. 1998).

Hansen et al. (2011) found that frequent bullying was associated with lower salivary cortisol compared with the nonbullied group. Cortisol is a natural energy-releasing hormone with a distinct daily rhythm. The physiological effect of cortisol is to help the organism to maintain homeostasis under conditions of stress (Heim et al. 2000). Cortisol is highest in the morning and decreases to the lowest point in the evening (Hansen et al. 2011). The regulation of cortisol can be disturbed in different ways, for example, cortisol can be high over a longer period or the curve of cortisol may be "flat" (i.e., cortisol is low in the morning and in the evening) (Chrousos 2009). A lower concentration of cortisol in the morning among bullied employees could indicate that their energy level is lower than that of nonbullied employees (Hansen et al. 2006).

Workers who are frequently bullied also reported more mental health symptoms. A lower concentration of cortisol has been previously found within individuals with post-traumatic stress disorder (Yehuda et al. 1996). It has also been found among healthy individuals who have been exposed to chronic stress in their living conditions as well as among patients with several bodily disorders, such as burnout with physical complaints, chronic fatigue syndrome, and fibromyalgia, which is a syndrome characterized by chronic and widespread musculoskeletal pain, sleep disturbances, fatigue, and some psychological impairment like depression (see Heim et al. 2000 for an overview). These results regarding physiological responses among frequently

bullied individuals support the self-reported mental health problems among those who are frequently bullied. Bullying is also associated with higher levels of job stress and burnout and lower levels of job satisfaction (Einarsen et al. 1998; Bowling and Beehr 2006).

Social climate is defined as the personality of a setting or environment (Moos 1994). Social climate is considered to consist of components defined as a set of organizational characteristics that are relatively stable and differentiate between organizations. These also influence the behaviors of organization members (Duxbury et al. 1982). Bullying reflects the social climate at the organization. An organization in which bullying occurs is a stressful place to work, not only for those being bullied, but also for those who observe bullying. It has been found that observers of bullying reported more general stress and mental stress reactions than those employed in a workplace where there was no bullying (Vartia 2001). Saastamoinen et al. (2009) found that observing bullying was associated with acute pain in women, whereas in our study (Helkavaara et al. 2011) observing bullying was strongly associated with emotional exhaustion in men and women. Repeatedly observing bullying in the workplace was the strongest predictor of emotional exhaustion in both genders.

Through increased rates of sick leave bullying causes a high financial burden for organizations and for society (Kivimäki et al. 2000). When considering the costs caused by workplace bullying, in addition to the direct costs of sick leave, it is also important to take into account the indirect costs, which cause premature termination of employment and lost productivity of employees (Kessler et al. 2008). These studies have confirmed that bullying is a threat to the psychological as well as to the physiological well-being of bullied employees and also to those who observe bullying. Bullying is a strong risk factor for emotional exhaustion and future burnout.

In the future, organizations should take into account all the problems that bullying causes and focus on reducing bullying. This would help the well-being of the victims and those who observe bullying. It would also produce financial benefits for organizations through less sick leave (Kivimäki et al. 2000) and better work ability and work engagement.

10.5 Conclusion

This chapter covers psychosocial work factors that are associated with emotional exhaustion among middle-aged men and women. When considering the results of different studies presented in this chapter, it is relevant to bear in mind that the onset of burnout can differ between men and women. These gender differences may explain some of the results of the studies in which psychosocial work factors have different kinds of associations with emotional exhaustion in men and women.

Regardless of gender differences, there are many psychosocial work factors that are associated with emotional exhaustion for both genders. These factors, such as job demands, organizational justice, and bullying in the workplace should all be taken into account in the future when planning ways of preventing burnout and improving employees' well-being.

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Chapter 11
Burnout Examination

Aleksandra Milićević-Kalašić

11.1 Introduction

Burnout causes major concern in the fields of occupational and caregivers' health (Valente et al. 2011; Milićević Kalašić 2009). As emotionally demanding situations occur in life, burnout represents an important issue in the psychological literature (Kumar et al. 2011). Most studies indicate that burnout is a serious problem. The phenomenon has been connected to various consequences for the individual, family, organization, and for the society (social networks); research has linked burnout symptoms to a variety of mental and physical health problems, such as depression, insomnia, and gastrointestinal disturbances. These are serious conditions that threaten one's health and outlook and can be devastating to the individual's family and career as they are related to high job turnover, long-term sick leave, early retirement, and possibly morbidity and mortality. Research has demonstrated that burnout can result in anxiety, depression, reduction of self-esteem, substance abuse, decreased performance, and increased health problems (Alarcon 2011), and burnout is one of the measures of negative well-being (Fisher and Boer 2011). While "the flat battery" remains the main metaphor for burnout, it is important to emphasize that burnout is not just fatigue or exhaustion.

Burnout is a concept that has developed in a practical manner (Maslach et al. 1986, 1996, 2011). It first emerged in the United States in the mid-1970s when two researchers, Freudenberger and Maslach, independently described burnout as a negative consequence of human service work, characterized by emotional exhaustion, loss of energy, and withdrawal from work (Kristensen et al. 2005a). Freudenberger's

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article was initiated by his own feelings of exhaustion, fatigue, frequent headaches, sleeplessness, gastrointestinal problems, shortness of breath, and lingering illnesses, such as a cold or flu (Reinardy 2011).

11.2 Definition of the Terms

Initially, burnout research was regarded as "pop psychology" by some academics and professionals, and ignored outright (Maslach and Jackson 1984). That has since changed. Thousands of articles and books discuss this phenomenon, but so far there have been no studies under the name of burnout examination. A literature search was conducted to identify published articles and conference papers related to burnout examination. The articles were identified through computer-based searches of the Medline, Cambridge University Press, SAGE Publishing, Wiley Interscience, and HighWire Press databases. Very few were found, compared with the thousands of articles on the subject of burnout.

Examination is a critical inspection and investigation, usually following a particular method, performed for diagnostic or investigational purposes (Mosby's Medical Dictionary 2009). Burnout is defined as a state of "physical, emotional and mental exhaustion that results from long-term involvement in work and life situations that are emotionally demanding" (Schaufeli and Greenglass 2001).

Burnout can also be defined as a response to chronic job stress that occurs when the individual feels overwhelmed and powerless to face up to difficulties in the work environment (Gil-Monte and Olivares Faúndez 2011). First, burnout has been defined as a specific kind of occupational stress in human service professionals, which results from the demanding and emotionally charged relationships between caregivers and recipients (Maslach and Jackson 1996), the so-called emotion work (Zapf and Holz 2006).

Healthcare providers are generally considered at high risk of work-related stress; approximately three quarters of pediatric oncologists experience burnout (Roth et al. 2011; Poulsen et al. 2011). High burnout prevalence is also found in psychotherapists (Lee et al. 2011), psychiatrists (Lasalvia et al. 2009; Kumar et al. 2011), and nurses (Wlodarczyk and Lazarewicz 2011). Next to the caring professions, teaching is the second major risk profession for burnout (Maslach et al. 2001; Moya-Albiol et al. 2010; Cheung et al. 2011).

Burnout syndrome encompasses emotional exhaustion (EE), depersonalization (DP), also known as cynicism, and reduced personal accomplishment (PA) (Maslach and Jackson 1986), as a solution to the imbalance between having high expectations in life and the capacity of one's body and mind to meet them. Emotional exhaustion (tiredness, somatic symptoms, decreased emotional resources and feeling that one has nothing left to give to others) is usually considered to be the central quality of burnout and the most obvious manifestation of the syndrome. In most of the studies reviewed, depersonalization is considered to be a psychological coping strategy, develops as a (dysfunctional) means of coping in stressful situations

similar to avoidance. While a certain level of depersonalization might be a protective factor against burnout, elevated levels of depersonalization might lead to negative outcomes in terms of increased emotional exhaustion and lower personal accomplishment (Bakker et al. 2000). The component of cynicism refers to a distant and cynical attitude toward one's work, whereas reduced professional efficacy describes loss of competence and productivity, and a tendency to evaluate negatively one's past and present accomplishments at work (Maslach et al. 1996). This has been presented in detail in other chapters.

11.3 Burnout: An Invented Illness or an Illness Without a Diagnosis?

Burnout is experienced individually, expressed in a variety of ways over different periods of time, but also influences their social networks and society as a whole (Bährer-Kohler 2011).

Burnout is not considered a mental disorder and no diagnostic guidelines are offered for its identification (World Health Organization 1992). There are assumptions that identifying burnout is difficult because of insufficient diagnostic guidelines, but physicians do diagnose job-related psychological health problems. In the International Classification of Diseases and Related Health Conditions, burnout can be coded (Z73.0) as a factor that influences health status and contact with health services, while Schaufeli and Enzmann (1998) argued that burnout can be classified as a mental adjustment disorder under the current diagnostic criteria in the DSM and/or as work-related neurasthenia (ICD-10; World Health Organization 1992). An emerging issue within the burnout literature involves the status of burnout as a psychiatric disorder (Weber and Jaekel-Reinhard 2000; Halbesleben and Buckley 2004).

Burnout has become an issue of mental health as well as of public health. The holistic approach of multidisciplinary teams is mandatory.

11.4 The Etiology and the Development of Burnout: Causal Order of the Three Burnout Dimensions

It is considered that a good understanding of the etiology and development of burnout could facilitate the early recognition and treatment of burnout (Houkes et al. 2011). Burnout develops gradually over time, and can be considered a process (Schaufeli and Enzmann 1998). There is still a lack of clarity about the causal order of the three burnout dimensions, but some researchers have interpreted their associations as resulting from an underlying causal process that reflects the development of burnout. Theoretically, three prominent models exist that describe this

process: the phase model of Golembiewski et al. (1986), Leiter and Maslach's (1988) process model, and Lee and Ashfort's model (1993) and they have been presented in detail in the remaining chapters.

11.5 Contributive and Preventive Factors to the Development of Burnout

It has been hypothesized that the psychosocial work environment plays a major role in the onset of burnout. In addition, the sociodemographic characteristics of the employees (e.g., age, sex, and cohabitant status), social relations outside the workplace, lifestyle (e.g., smoking and alcohol consumption), and personality aspects may influence the risk of burnout. Emotion stability, positive affectivity, and negative affectivity, each has relatively stronger relationship with emotional exhaustion as well as depersonalization, while self-efficacy and positive affectivity yielded a stronger relationship with personal accomplishment (Alarcon et al. 2009). Education may influence personal accomplishment, which means that educational level can be interpreted as a protective factor, as well as increasing age. Burnout syndrome decreases with increasing age; workers develop a degree of tolerance toward the discrepancy between expectation and reality, and job satisfaction increases with increasing age. The results of some very extensive studies suggest that socioeconomic, individual, and work-related resources may accumulate over the life course and may protect employees from job burnout (Hakanen et al. 2011; Lee et al. 2011). Providing individuals with more autonomy appears to be important in reducing negative psychological symptoms, relatively independent of wealth (Fisher and Boer 2011).

Meta-analysis of gender differences in burnout shows that burnout is experienced differently by men and women: women are more likely to be more emotionally exhausted than men, whereas men are more likely to be more depersonalized than women (Purvanova and Muros 2010). With the increasing number of women in the workforce, especially in the service sector, the caring and teaching professions, there is a need to understand how the interrelationship between emotions and the demands of work and family influence their well-being (Noor and Zainuddin 2011; Brauchli et al. 2011; Langballe et al. 2011).

The Conservation of Resources (COR) theory (Hobfoll and Freedy 1993) proposed four resource categories (objects, conditions, personal characteristics and energies) that people value and are motivated to obtain, maintain, and protect. Burnout is expected to occur when these resources are threatened or lost, or when a person invests resources, but fails to regain them. Furthermore, current studies found that demands, resources, and organizational attitudes were significantly related to all three aspects of burnout in samples from both human services and nonhuman service professions (Alarcon 2011). Burnout can be caused by a combination of high demand, low control, and low social support (Le Blanc et al. 2007). Out of job

demands, time pressure has been one of the most significant contributors to burnout. Job-related situational factors are considered to be the prime correlates of burnout (Maslach et al. 2001; Nahrgang et al. 2011).

11.6 Identification of Burnout

Although burnout is not one of the clinical pictures that are mapped in the ICD-10 there are tests and objective as well as subjective markers to identify and map burnout (Table 11.1).

Self-reporting scales might in fact be the most valid measurement method, because the participant is the best person to report on their own personality, habits, and level of burnout (Alarcon et al. 2009). In order to measure the burnout level of those under stress related to work, it is possible to use various instruments: either the MBI (the Maslach Burnout Inventory for exhaustion and cynicism) or the OLBI (Oldenburg Burnout Inventory for negative exhaustion and negative disengagement) can be used. For assessing exhaustion, the SMBM (the Shirom–Melamed Burnout Measure for physical fatigue, cognitive weariness, and emotional exhaustion) or the BM (for exhaustion and demoralization) can be used as well as the SBI (Spanish Burnout Inventory for enthusiasm, psychological exhaustion, indolence, and guilt) (Qiao and Schaufeli 2011).

11.6.1 Maslach Burnout Inventory

The Maslach Burnout Inventory (MBI) was originally developed by Maslach (Maslach and Jackson 1986) in English, but has been translated into several languages: German (Büssing and Perrar 1992), Chinese (Cheung et al. 2011), etc. The MBI has been inductively developed by factor-analyzing a rather arbitrary set of items (Schaufeli 2003). It was estimated that by the end of the 1990s, the MBI was used in over 90 % of the research articles and dissertations on burnout. Thus, gradually the concept of burnout became equivalent to the multidimensional way it was assessed by the MBI (Schaufeli and Enzmann 1998).

The MBI has 22 items on a five-point rating scale and three subscales: Emotional Exhaustion (EE), Depersonalization (DP), and Personal Accomplishment (PA). The first (EE) describes feelings of being exhausted by the job (score range 0–36). The DP subscale deals with self-esteem and behavior toward recipients of care,which lacks emotion for the individual (score 0–20). The PA subscale addresses feelings about the ability to cope with the problems of working directly with people in the work environment (score range 0–32). High EE and DP, and low PA are considered to indicate burnout. It is suggested that MBI might not be culturally appropriate as assumed in underdeveloped countries (Thorsen et al. 2011).

Table 11.1 Burnout measures

Name	MBI (Maslach and Jackson 1986)	Copenhagen Burnout Inventory (CBI) (Kristensen et al. 2005a)	The Oldenburg Burnout Inventory (OLBI) (Demerouti et al. 2003)	Shirom–Melamed Burnout Measure (SMBM) (Shirom and Melamed 2006)	Spanish Burnout Inventory (SBI) (Gil-Monte 2005)
Content	22 items	19 items 5 response categories	2 sub-scales 8 items 4 items + 4 items –	Three subscales 14 items (1–7)	20 items in 4 dimensions
Exploration	Emotional Exhaustion EE Depersonalization (DP) and Personal Accomplishment (PA)	Personal burnout, work-related burnout, and client-related burnout.	Exhaustion and disengagement (from work)	P = physical fatigue E = emotional exhaustion C = cognitive weariness	Enthusiasm for the job Psychological exhaustion Indolence Guilt
Adds	USA/UK	Denmark	Germany	Israel/USA	Spain

The Maslach Burnout Inventory—Human Services Survey (Bakker et al. 2000; Chao et al. 2011), the Maslach Burnout Inventory—Educators Survey (Schaufeli and Van Dierendonck 2000), the Maslach Burnout Inventory—General Survey (Maslach et al. 1996; Mäkikangas et al. 2011) are variations developed for the examination of burnout across occupations.

Limitations identified in the MBI (MBI has some limitations that require it to be used with caution outside of the American and Anglo-Saxon context), have encouraged development of some alternative measures of burnout in the last few years, in order to solve those limitations such as the further instruments (Wheeler et al. 2011; Qiao and Schaufeli 2011).

11.6.2 Copenhagen Burnout Inventory

The Project on Burnout, Motivation, and Job satisfaction (Danish acronym PUMA) is a 5-year prospective intervention study on the determinants and consequences of burnout in the human services sector. In the pilot phase of the PUMA study, researchers did not find the MBI satisfactory; the respondents criticized the number and some types of the questions, MBI was restricted to use among employees working with clients ("do people work") and they wanted to focus on exhaustion as the core element of burnout. They found out that the translation of the questionnaire from one culture to another is a complicated issue. They developed their own instrument, the Copenhagen Burnout Inventory (CBI). CBI scales do not measure stable traits of the individuals but degrees of burnout that may change over time. However, it does not include depersonalization and reduced personal accomplishment (Kristensen et al. 2005a).

The CBI is a screening measure of level of burnout and consists of three categories, Personal Burnout, Work Burnout, and Client/Customer Burnout, divided into three scales. Personal burnout is defined as the degree of physical and psychological fatigue and exhaustion experienced by a person; the scale contains six items on general symptoms of exhaustion and is applicable to every person. Work-related burnout is defined as the degree of physical and psychological fatigue and exhaustion that is perceived by the person as related to his/her own work; the scale comprises seven items on the symptoms of exhaustion related to work and applies to every person in the workforce. Client-related burnout is defined as the degree of physical and psychological fatigue and exhaustion that is perceived by the person as related to his/her work with clients; the scale is based on six items on the symptoms of exhaustion related to working with recipients in human services and is applicable only to people who work with clients (Kristensen et al. 2005b).

All items have five response categories. The responses are rescaled to 0–25–50–75–100. Scale scores are calculated by taking the mean of the items on that scale (Borritz et al. 2006). The three scales can be used in different domains (all persons, persons who work, and persons who do client-work) according to the population being studied (Kristensen et al. 2005b; Brauchli et al. 2011).

11.6.3 The Oldenburg Burnout Inventory

The Oldenburg Burnout Inventory (OLBI) (Demerouti et al. 2003) was originally developed in Germany, and claims to solve two problems that are inherent to the MBI (i.e., three instead of two dimensions, and mixed instead of only negative items (Qiao and Schaufeli 2011)). It includes positively and negatively framed items to assess the two core dimensions of burnout: exhaustion and disengagement (from work). Exhaustion is defined as a consequence of intense physical, affective, and cognitive strain, i.e., as a long-term consequence of prolonged exposure to certain job demands. The eight items of the exhaustion subscale are generic, and refer to general feelings of emptiness, overtaxing from work, a strong need for rest, and a state of physical exhaustion. Disengagement refers to distancing oneself from the object and the content of one's work and to negative, cynical attitudes and behaviors toward one's work in general (e.g., uninteresting, no longer challenging, but also "disgusting"). For both subscales, four items are positively worded and four items are negatively worded. Professional efficacy is not included in the OLBI as a separate burnout dimension because it is not considered a core dimension of burnout and may also be interpreted as a possible consequence of burnout (Bakker et al. 2008).

The author's standpoint was that burnout and engagement are two opposite poles of one continuum. The OLBI is able to capture the core dimensions of burnout and its opposite. They redefined burnout as an erosion of engagement with the job, whereby energy turns into exhaustion, involvement turns into cynicism, and efficacy turns into ineffectiveness. In other words, the exhaustion and disengagement subscales include items that refer to their opposites: namely vigor (physical or mental strength, energy, or forces) and dedication respectively. Positively framed items should be reverse-coded if one wants to assess burnout (Halbesleben and Demerouti 2005).

The OLBI can be used for virtually every job, including health care, and is sensitive enough to uncover differences between jobs. It covers not only affective aspects of exhaustion, but also physical and cognitive aspects. This facilitates the application of the instrument to those workers who perform physical work and to those whose job is mainly concerned with processing information (Demerouti et al. 2001, 2003).

11.6.4 Shirom–Melamed Burnout Measure

The conceptualization of burnout that underlies the Shirom–Melamed Burnout Measure (SMBM) was inspired by the work of Maslach and her colleagues and Pines and her colleagues, and views burnout as an affective state characterized by one's feelings of being depleted of one's physical, emotional, and cognitive energies. The conceptualization of burnout formulated by Shirom, based on the COR theory (Hobfoll and Shirom 2000), relates to energy resources only, and covers physical, emotional, and cognitive energies. Burnout thus represents a combination

of physical fatigue, emotional exhaustion, and cognitive weariness, three closely interrelated factors (Hobfoll and Shirom 2000) that can be represented by a single score of burnout. Physical fatigue refers to feelings of tiredness and low levels of energy in carrying out daily tasks, like getting up in the morning to go to work. Emotional exhaustion refers to feeling too weak to display empathy to clients or coworkers and lacking the energy needed to invest in relationships with other people at work. Cognitive weariness refers to feelings of slow thinking and reduced mental agility. Each component of burnout covers the draining and depletion of energy resources in a particular domain. The SMBM consists of the three subscales: P = physical fatigue; E = emotional exhaustion; and C = cognitive weariness. The SMBM consists of 14 items scored on a seven-point frequency scale, ranging from 1 (almost never) to 7 (almost always). The reliability and validity of this instrument have been demonstrated in a number of studies (Shirom and Melamed 2006; Melamed et al. 2011; Qiao and Schaufeli 2011).

11.6.5 Spanish Burnout Inventory

The theoretical model underlying the SBI (Gil-Monte 2005) considers burnout to be a response to chronic job stress related to problematic interpersonal work relationships, and it is observed in individuals working with people and being in direct contact with them. Burnout is characterized by cognitive deterioration (low enthusiasm toward the job), emotional deterioration (psychological exhaustion), and attitudes and behaviors of indifference and indolence toward the clients of the organization. In some cases, feelings of guilt can appear. These symptoms constitute four dimensions of the inventory. The SBI consists of 20 items distributed into four dimensions:

1. Enthusiasm toward the job (5 items). This is defined as the individual's desire to achieve goals at work because it is a source of personal pleasure. The individual considers his/her job attractive and achieving professional goals is a source of personal accomplishment. Because the items in this dimension are formulated in a positive way, low scores indicate high levels of burnout. This scale is similar to that of the Personal Accomplishment subscale of the MBI.
2. Psychological exhaustion (4 items). This is defined as the appearance of emotional and physical exhaustion due to the fact that the job demands dealing daily with people who present or cause problems. This scale is similar to that of the Emotional Exhaustion subscale of the MBI.
3. Indolence (6 items). This is defined as the presence of attitudes of indifference and cynicism toward the organization's clients. Individuals scoring high in this dimension present insensitivity and indifference toward clients' problems. This scale is similar to that of the Depersonalization subscale of the MBI.
4. Guilt (5 items). This is defined as the appearance of feelings of guilt about negative attitudes and behavior developed on the job, especially toward the people with whom s/he establishes work relationships.

Items are answered on a five-point frequency scale, ranging from 0 (Never) to 4 (Very frequently: every day) (range 0–4). Low scores on Enthusiasm toward the job, together with high scores on Psychological Exhaustion and Indolence, as well as on Guilt, indicate high levels of burnout (Gil-Monte and Olivares Faúndez 2011).

Job satisfaction can be measured with 13 items from the Job Diagnostic Survey (JDS) (Vartiainen 1989).

Cronbach's alpha coefficient is a measure of internal consistency or reliability of a psychometric test score for a sample of examinees, or how closely related a set of items are as a group. Cronbach's alpha can be written as a function of the number of test items and the average inter-correlation among the items. Cronbach's alpha reliability coefficient has been used for measuring internal consistency in studies of burnout level (Wheeler et al. 2011).

It is important to bear in mind that if professionals and researchers use burnout measures or classification schemes that are heavily reliant on the emotional exhaustion component of burnout, this may result in the over-diagnosis of women and under-diagnosis of men (Houkes et al. 2011).

11.7 Measurement of the Level of Depressive Symptoms

McKnight and Glass (1995) have shown that burnout and depression develop concurrently. Leiter and Durup (1994) argued that the MBI's emotional exhaustion subscale overlaps with the lowered energy and chronic fatigue symptoms, regarded as symptoms of depression (dysthymic disorder). McKnight and Glass (1995) found that burnout and depression were reciprocally related rather than one being causally related to the other. Their review suggested that depressive affect and burnout may share a common etiology, and that their shared variance may be due to their concurrent development. (Glass and McKnight 1996). Depression and burnout are closely related, but they are certainly not identical twins (Brenninkmeyer et al. 2001; Steinhardt et al. 2011).

One aim of this chapter is to examine burnout and the aforementioned instruments to measure the level of depressive symptoms: the Beck Depression Inventory (BDI) (Beck et al. 1961) and the Hamilton Rating Scale for Depression (HRSD) (Hamilton 1960, 1967, 1980).

The *Beck Depression Inventory (BDI)* (Beck et al. 1961) is a 21-item questionnaire measuring respondents' negative thoughts (e.g., suicidal thoughts), feelings (e.g., sadness), and behavior (e.g., crying). The items were rated on five-to-six-point scales. The higher the BDI score, the more severe the level of depressive symptoms.

The *Hamilton Rating Scale for Depression (HRSD)* (Hamilton 1960, 1967, 1980) has been regarded as the gold standard measure of depression severity for over four decades. It has been estimated to be the most frequently used measure of depression severity in clinical trials, but the scale cannot be used as a diagnostic instrument. The HRSD is a multiple-choice questionnaire that clinicians may use to rate the

severity of a patient's depression. The questionnaire rates the severity of symptoms observed in depression, such as low mood, insomnia, agitation, anxiety, and weight loss (Hamilton 1960, 1967, 1980).

11.8 Biological Markers for Burnout Examination

In order to make examination of burnout more objective, further prospective studies that incorporate selected physiological measures of stress hormone levels (catecholamines and cortisol) and cytokine assays (particularly proinflammatory cytokines) appear to be needed now (Armon 2009). To date, no potential biomarkers for burnout have been found, largely due to the incomparability of studies (Danhof-Pont et al. 2011).

11.9 Conclusion

There is a need to create specific inclusion and exclusion criteria on burnout, although it is particularly challenging, since the research field has not achieved common agreement on the conceptualization of burnout. In spite of this disagreement, it is important that the criteria chosen are explicit, that the benefits are assessed according to those criteria, and that professionals are sensible enough with regard to burnout, which can be reached through training and education on this issue. Longitudinal studies are also recommended to analyze the relationship between the dimensions of the inventories in an empirical way. The holistic approach using multidisciplinary teams is mandatory. All the factors mentioned above may facilitate the diagnosis and prevention of burnout.

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Chapter 12
Prevention and Communication: A Most Effective Tailored Treatment Strategies for Burnout

Dorothee Karl and Margret Fischer

12.1 Introduction

Burnout is steadily causing more and more damage to the national economy in Germany. Calculations by the Federal Statistical Office indicate that, by way of example, the cost of illness caused by stress, burnout, and mental illness in 2006 amounted to 26.7 billion Euros (Statistisches Bundesamt 2009) Compared with the first survey in 2002, this figure is higher by 3.3 billion Euros, the steepest increase of all types of illness in that period. Surveys show that occupational safety experts believe that the most significant source of mental stress is the workplace (Berufsgenossenschaften and BKK Bundesverband 2004). According to the Centre of Disease Management at the Munich University of Applied Sciences, the loss of productivity due to mental disorders suffered by German companies every year ranges between 8 and 20 billion Euros (Centrum für Disease Management 2010).

Individuals as well as companies might save money if targeted steps were taken to prevent burnout. The Mental Health Atlas of the World Health Organization (WHO) for 2011 shows that on a global scale, less than two US dollars per person per year are being invested in mental health.

At the same time, the demand for highly qualified professionals and managers is rising. It is they who enable innovation and economic growth in the first place. The ongoing demographic change makes it increasingly hard to meet this demand, and

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some EU countries try to cope with that problem, partially at least, by increasing the retirement age. This presupposes, however, that people retain their ability to work and productivity until late in life.

Yet a glance at a general analysis of reports by the German health insurers clearly shows that we cannot take this for granted for many people: while disorders of the musculoskeletal and respiratory systems occupied top ranks in former reports, mental illnesses top the list today, having almost doubled compared with 1990. What is more, the number of working hours lost by organizations through mental disorders is disproportionately great. It is impossible to predict the extent to which the persons concerned may regain their stability and their capability to perform at work on a constant basis.

Burnout is more of a syndrome, hard to diagnose and distinguish from other disorders: it has several levels of manifestation. For this reason, the following contribution will first address the concepts of health and prevention and take a closer look at the subject of stress, stress being "closely related" to burnout.

Following this, the communication aspect will be given closer attention, for it is from this holistic understanding that action strategies for burnout may be derived.

12.2 Prevention

Since the 1990s, a marked change has been emerging in health research. Taking place at various levels, it has triggered a profound transformation in the discipline.

After a widespread debate about the WHO's concept of health, a broader interpretation of health is increasingly gaining ground in theory as well as in practice. Highlighting the physiological, mental, and social aspects of health, the WHO places stress on the well-being of individuals and their ability to experience health subjectively. This interpretation clearly goes beyond the borders that were set by the exclusive consideration of physiological aspects in former times (WHO 1991).

Moreover, it is increasingly granted that health has a dynamic and processual aspect. In his salutogenic concept, Antonovsky (1997) abandoned the dichotomy between health and illness for a continuum of health and illness. Antonovsky assumes that there is a constant struggle between salutogenic and pathogenic forces ranging between the poles of health and illness. If we adopt this basic idea, the key question is this: how can a person become more healthy and less ill? This basic salutogenic concept becomes even clearer when we compare it to downhill skiing. The question is, "how to render the track less dangerous and turn people into excellent skiers at the same time" (Antonovsky 1993, p. 11).

In other words, the earlier we influence the individual as well as his or her environment, the greater will be the effect of this influence on the dynamic, processual course of health. Consequently, prevention plays a pivotal part in the early treatment of burnout.

The term prevention describes steps designed to prevent or delay the onset of a disease or, where this is not possible, to mitigate its consequences.

We distinguish among primary prevention, secondary prevention, and tertiary prevention (Caplan 1964):

Because it starts before the onset of a disorder, the first type of prevention addresses a group of people who are free from symptoms of illness. The classical methods employed in this target group include inoculations as well as counseling about nutrition and coping with stress. Consequently, it focuses on stabilizing or strengthening existing resources.

Secondary prevention begins in the early stage of a previously contracted disease in which no sign of ill health is present. Its objective is to keep a disease from developing more serious symptoms or even becoming chronic. This type of prevention addresses people who are free of subjective complaints and were made aware of their state of ill health only by programs, health checks that they incidentally attended at e.g. conferences, or similar measures. In many cases of burnout, there are minute signs at various levels that are kept from penetrating into the client's consciousness by compensation or denial and can only be brought to his or her attention by close questioning, giving them an entirely new face.

The objective of tertiary prevention is to keep a manifest disease from causing consequential damage or, alternatively, to prevent relapses, which largely overlaps with the objectives of rehabilitation. As described at the beginning, rehabilitation after a manifest burnout syndrome is a very long and drawn-out process whose ultimate success is very difficult to predict. Moreover, as the signs often manifest at various levels it must be treated on an interdisciplinary basis to be truly successful.

12.3 Subjective Health: Burnout

When people are not admitted after a complete collapse, but turn up in a practice at an earlier time, we frequently hear that such clients were given feedback about certain peculiarities by friends, spouses, children, or other members of their circle, which set their subjective assessment mechanisms in motion in the first place. This clearly illustrates the significance of subjective and objective health and the difference between them in burnout as well as in other disorders.

To arrive at a realistic judgment of an individual's health, it must be assessed subjectively (by the individual) as well as objectively (by third parties). According to Gunzelmann, subjective assessments depend on individual values, motives, and health concepts (Gunzelmann et al. 2000). Individual assessments are based on four concepts of health:

1. Health as the absence of illness
2. Health as a reservoir of strength and energy
3. Health as functional performance capability
4. Health as the balance between physical and mental well-being (BMFSFJ 2001)

Self-assessments, i.e., subjective evaluations of one's own mental and physical health, are largely guided by biographical experiences and personal interpretations. On the one hand, therefore, the meaning of health differs from one person to another, while on the other hand, subjective judgments about one's own state of health (Borchelt 1996) may differ even if the underlying objective data are the same. A study on correlative connections has shown that subjective assessments of health are less closely connected to the objective state of health diagnosed by a physician (Lehr 1997). More will be said about assistance and care dependence later on (Künemund 2000).

12.4 Emotion and Health

Next to subjective assessments of health, emotions are of crucial importance, although, as in the old conundrum about the hen and the egg, we cannot say whether emotions such as insecurity or fear may cause subjective assessments to worsen, or worse subjective assessments of one's own state of health entail negative emotions. Still, there is indeed no basic dispute about emotions and health being connected (Ilmarinen and Tempel 2002).

There is a large number of studies investigating the effects of emotions at the physiological or behavioral level (e.g., Seligmann 1979; Wortman and Brehm 1975).

Because of restructuring measures, fixed-term employment contracts, and maximum expectations of flexibility with respect to places of work and working hours that are frequently met with in today's working world, many employees are afraid that they might lose their job. This sometimes chronic anxiety markedly increases the risk of cardiac infarction, as Siegrist documented as early as 1991 in a study on the subject (Siegrist 1991; Ilmarinen and Tempel 2002). Moreover, other chronic anxieties may also increase that risk in persons of identical physiological condition (Harych 1995; Ilmarinen and Tempel 2002).

Next to the fear of losing one's job, the following chronic anxieties also play an important part in today's working world (Harych 1995; Ilmarinen and Tempel 2002):

1. Irregular and/or reduced wage payments
2. Loss of status (e.g., through unemployment)
3. Abolition of perquisites
4. Increased requirements regarding mobility
5. Increased pressure to perform because of tighter time standards
6. Changes in vocational qualification requirements

In principle, fears do not represent a threat to human salutogenic development, provided that people believe that their cognitive, physical, mental, or social resources enable them to cope with the situation and influence it actively. Fears negatively influence the motivation to act constructively in finding alternative solutions or in reinforcing the existing skills. Intrinsic motivation can be a factor enabling employees to break through the negative cycle (ten Brummelhuis et al. 2011).

Using the fear of a cardiac infarction as an example, Berger (2004) clearly demonstrates the various levels at which anxiety may express itself. At the emotional level, there may be feelings of helplessness, fear, or the feeling of being at the mercy of circumstances. At the physical level, fear may express itself by sweating, shortness of breath, shaking, or tachycardia. At the behavioral level, activities like taking medication or behaving evasively can be observed. At the cognitive level, people may have thoughts like "I am going to faint" or "I am losing control."

This example of an anxiety response at various levels of influence may be transferred to a wide range of situations. Things become problematic when one situation that has not been coped with brings forth the next, setting off a chain reaction that can have a lasting negative influence on a person's self-image. For people to regain their autonomy, self-responsibility, satisfaction, and confidence in their own resources and options to influence matters, it is imperative to initiate the requisite steps in time. Frequently, an experience of anxiety like the one sketched out above is reinforced by prejudices in the social environment, one of them being the preconceived opinion that there can be no improvement in the plasticity of experience and behavior in old age, or that there is a greater danger of cardiovascular illness. The overcoming of the prejudices and the focus on preventive steps may constitute a major contribution toward improving health (Radebold 1998; Helmchen and Kanowski 2000; Heuft et al. 2000).

12.5 Stress and Burnout

According to Selye (1936, 1977), "stress is an unspecific reaction of the body to requirements of any kind."

> Stress burdens, disturbs, and threatens the organism in a manner which, if it becomes too intense, may overtax its mental and/or physical capacities to adapt. (Vester 1976)

These generally accepted definitions of stress do not answer the question why people exposed to identical objectively measurable stresses differ so widely in their perception of stress.

One possible explanation for this heterogeneity was offered by Lazarus. According to him, the subjective perception of stress depends on appraisals made by the person who is in a stressful situation. These appraisals are made in phases that follow one another in time (primary and secondary appraisal), ultimately ending in a judgment about the extent to which the person, in his or her opinion, has or does not have the psychological, physiological or cognitive resources or strategies needed to cope with the situation (Lazarus 1974).

It is of crucial importance that these appraisals are not made entirely consciously, and that the outcome of a stressful situation, whether positive or negative, basically influences the appraisal and management of subsequent stressful situations.

This concept of stress was expanded later on with a focus on situation control (Lazarus and Folkmann 1987). Subjective appraisals are guided by the following four criteria:

1. Expectation of a requirement
2. The standard of quality by which one's own reaction is assessed
3. Confidence in one's own abilities and resources
4. Assessment of the risk on the basis on one's personal value pattern

Fundamentally, these questions and assessments are based on questions people ask themselves about their own personality, the extent to which they accept and recognize themselves as complying with their own personal standards and values, and the extent to which this is reflected by their environment. Like a self-fulfilling prophecy, a subjective feeling of worthlessness, weakness or declining performance may take root psycho-physiologically, causing a manifest negative self-image that leads to defects in the performance of actions and is ultimately confirmed by critical feedback from the environment.

In a stress test, Schulz (1982) found marked differences between subjects who had rated themselves as robust before the experiment and others who characteristically appraised failures in a manner that stabilized their self-esteem.

During the study, less robust persons made more mistakes, reporting anxiety, insecurity, and dissatisfaction, attributing poor performance to lack of concentration on their part, and even showing more irregular physiological reactions than the reference group.

How to arrive at a differential diagnosis of stress and burnout has been a highly controversial question. However, one crucial distinctive feature appears to be the extent to which the psycho-physical condition and the personality of the individual has been penetrated by experiences of inadequacy that threaten his or her self-esteem, with a potential effect on a variety of symptomatic levels.

> Frequently, burnout does not arise from stress per se but from unmediated stress—being under stress without a way out, a buffer, or a support system at your disposal (…). (Farber 1983, p. 14)

Often, burnout syndrome occurs in people who are generally regarded as masterful, strong, self-confident, and also very successful. This outside view is a blessing as well as a curse; a blessing inasmuch as positive and appreciative feedback may act as a motive force by satisfying a desire for recognition and appreciation, and its euphorizing effect may gloss over signs of excessive strain. It may become a curse when persons come under pressure not to admit to weaknesses, difficulties, and problems because they overrate the danger of losing their environment's acceptance and appreciation if they are forthright.

It has already pointed out that subjective assessments of health always result in part from a person's own biography, and that stressful situations experienced earlier always greatly influence the assessment and mediation of later stressful situations. This is the learning process based on experience in the continuous reflection of the circumstances in relation to the abilities, emotions and reactions of oneself

(Bruggmann 2000). When persons have previously had positive experiences in which they were able to use their resources successfully they will approach subsequent stressful situations with great self-confidence and assurance. When experiences have been negative (the problem was not solved or the external appraisal was negative), it is of crucial importance whether failures are attributed to external factors or internal factors, such as a lack of intellectual capability.

In extreme cases, linking failures to a lack or dearth of available capabilities or resources may lead to a flattening of all emotional connotations—a general mood characterized by dejectedness, irritability, fear, and listlessness—and may even cause a feeling of inner emptiness closely related to feeling hopeless, lonely, isolated, and apathetic.

If a perceived lack of autonomy is added to this mood, meaning that emotional changes are negatively reinforced by the experience of helplessness, this self-reinforcing process will end in burnout. Thus, the condition is the result of a slow process of development characterized by permanent stress and energy expenditure (Freudenberger and North 1992).

The individual steps of this process, frequently subdivided into 12 phases (e.g., Freudenberger and North 1992), may be roughly outlined as follows.

First, people encounter situations with which in their own view they cannot cope, conforming to their own standards. They attempt to expend yet more energy in meeting these standards. If more energy is expended, energy resources cannot be fully "recharged." Next, any activities not related to the job are displaced and downgraded because they are regarded as less important. As people focus more and more on fulfilling the high standards they have set themselves, they fall into a state of tenseness that may result in intolerance and irritability. Gradually, inner unrest and a lack of orientation appear but do not cause behavioral changes that are perceivable from outside. Then comes the turning point, and perceptible changes manifest themselves: the persons concerned may show withdrawal tendencies, behave cynically, or show other behavioral patterns that completely surprise their environment.

The key problem at this stage is that the persons concerned are no longer able to sense their own needs and cannot communicate them in consequence. Added to this are many and varied signs of exhaustion at the emotional, physical, and even cognitive level. This development may peak in total exhaustion with the destruction of the self-esteem and loss of control (Burisch 2010).

All in all, there are two sources for the development of burnout that were already apparent in the previously cited example of a downhill skier.

One is the individual level, which is affected by great expectations of oneself, lack of influence, a great desire to meet the requirements of the environment, and a host of other criteria. The second source is the environment, characterized by unrealistic expectations, nontransparency, lack of participation, insufficient freedom of action, ambivalence, value conflicts, and poor justice (Maslach and Leiter 1997, p. 38).

These two sources are mutually dependent and must be considered holistically. In our skiing example, prevention means selecting a suitable track and preparing it so as to avoid as many sources of danger as possible or at least mark them properly.

Conversely, skiers need warm-up exercises and a certain level of training. Moreover, they must be certain that mistakes are permitted and even desirable for their further development, and that the track always provides a variety of perspectives as well as a safe, benevolent ground.

The interactions among health, subjective health, stress, and burnout described earlier on clearly document the relevance and necessity of making an interdisciplinary effort to develop a precise and differentiated analytical method that has been lacking so far.

As the symptom levels of the burnout syndrome may differ widely between individuals, the success of any steps taken crucially depends on the precision of the analysis and diagnosis. Like no other clinical picture, burnout calls for an interdisciplinary approach to diagnosis as well as to the resultant therapy. Only in this way can justice be done to the manifestation and individual pathogenesis of the various symptoms.

As described above, burnout in extreme cases will cause clients to cut themselves off completely, feeling profoundly that they are helpless, empty inside, and not strong enough to change the situation.

Consequently, prevention must begin far earlier, including sensitization to and feedback about characteristics that are changing in the direction of a burnout. One of the most effective measures to prevent isolation with its perpetually self-confirming negative appraisal pattern is communication.

12.6 Communication

Communication, one of the important means of preventing burnout, is effective in all three areas of prevention. In primary prevention, it serves to avoid burnout; in secondary prevention, it serves to heal and prevent the deterioration of symptoms; and in tertiary prevention, it assists in the reintegration of patients into their working life and the prophylaxis of burnout.

As every human being differs from others especially in terms of genetic makeup, upbringing, personality, education, and socialization, communication is first of all a means of making people aware of these differences in pathogenesis and development. Communication acts at three different levels: communication with oneself, interaction with a communication partner, and reflection on the communication process. In a meta-analysis of 84 burnout studies, Klink et al. found that the efficacy of various stress management strategies differs: cognitive-behavioral strategies are more effective than multi-modal interventions and relaxation methods (Van der Klink et al. 2001).

Communication may intervene at the point where people form a cognitive structure of their experiences and emotions. This cognitive structure enables people threatened by burnout to understand their experiences better, to reflect upon them, and to re-interpret them. Confusing or anxiety-inducing experiences can be translated into an anxiety-free orderly context (Zech and Rimé 2005).

Empirical studies document that the mental and physical health of the subjects examined was indeed improved by this empathic communication. Further results of this positive influence include a decline in the frequency of recurrent thoughts, and increasingly positive emotions toward past experiences. Participants in the study who disclosed their emotions in an indifferent context frequently reported feelings of desperation and increased stress (Lepore et al. 2004).

In the context of work, Maslach and Jackson (1984) describe the burnout syndrome as the consequence of permanent stress and imbalances between work and resources. Emotional exhaustion, depersonalization, and reduced personal performance are three dimensions which they regard as relevant parameters, with emotional exhaustion being seen as the core dimension of burnout.

The effective treatment for burnout is timely and consistent prevention (Bergner 2010). Maslach and Goldberg, who do not regard burnout as an exclusively individual problem, develop solution approaches that are initiated at the individual as well as the institutional level (Maslach and Goldberg 1998, p. 72). To differentiate between the multitude of different strategies available to prevent and treat the burnout syndrome, it makes sense to distinguish between approaches that focus on the individual and concepts that relate to organizations (Schmidt 2011).

Methods that focus on the individual enable people to use their individual and social resources to become more resistant to stress and thus reduce the risk of burnout. Organization-related concepts are aimed at improving the working conditions in an organization and minimizing external stressors and/or promoting social support.

Understood broadly, therefore, prevention means reducing the stress that is having an impact on the persons concerned. The prevention methods employed differ according to the stress-related background theory, the level of intervention, the management players, and the openness and reasonableness of the individual, with communication forming the most important link.

12.6.1 Burnout in Companies/Organizational Context

Companies should employ tailored anti-burnout strategies to secure the profitability of the organization and the health of its workforce. “Workplaces are under the influence of powerful economic, political, and social forces which generate an atmosphere that has never been as susceptible to burnout as it is today’ (Maslach and Leiter 2001, p. 26).

The objective is to alert the members of an organization to the need to prevent burnout, while establishing the development of health-promoting conditions within it. According to Bauer et al., supervision groups that are moderated by psychotherapists and include an external coach for employees and their superiors are most effective in preventing burnout syndromes in a company (Bauer et al. 2003, p. 213).

Every year, companies in Austria, Germany, Switzerland, and elsewhere invest tens of billions in corporate communications, and the sums keep growing

(Zerfaß 2007, p. 21). The communication system is now an important division in a company. The "European Communication Monitor 2011" shows that the most important disciplines in communication management, corporate communications, and internal communications are expanding steadily.

As far as the use of communication methods as a strategy of prevention is concerned, executives are the most important players and multipliers in an organization because of their daily contact with their subordinates. Moreover, specific communication issues arise in conjunction with processes of change and in difficult situations (Schick 2010, p. 137). The most important skill in interpersonal communication is to use face-to-face communication authentically and effectively. The original type of communication is still the most comprehensive. According to Mast, personal talks constitute the most effective form of communication. Because of the immediate feedback among participants, they fulfill the functions of information, interaction, interpretation, and control (Mast 2000, pp. 106–107.).

External factors, such as workplace conditions, have their own significance and should be reviewed to assess their damage potential, for "persons who suffer burnout from their work may also be seen as barometers sensitive to societal conditions: those who display 'healthy' reactions to 'sick' conditions" (Rösing 2003).

Another essential aspect of burnout prevention is providing support for managers in developing a more differentiated self-perception. In a second step, the quality of self-perception affects the reliability with which others are perceived. The more executives are aware of their own self and the effects of their communication and are able to perceive both, the more qualified they will be to assess their subordinates correctly and save them from burnout. Senge et al. describe how self-responsibility forms a basis for conscious decisions, which enables executives to arrive at responsible decisions for themselves and for their employees (Senge et al. 2005, p. 14).

12.6.2 Communication and the Symptoms of Burnout

An important element in the prevention of burnout by communication is to analyze comprehensively any potential symptoms of burnout that may be present, manifesting themselves at the emotional, social, intellectual, or physical level.

Emotional symptoms include, among others, diminished emotional robustness, reduced empathy, impatience, intolerance, high irritability, frustration, anxieties, depressive reactions, feelings of helplessness and powerlessness, and even thoughts of running away or committing suicide.

The social effects of burnout may express themselves in avoiding personal and professional contacts, lack of attention, more frequent absences from work, difficulties in dealing with conflicts, withdrawal, and marital and familial problems.

Intellectual signs and symptoms include, for example, diminished concentration and/or productivity, inability to cope, difficulties in arriving at decisions, and loss of flexibility or initiative. Among others, the physical symptoms of burnout include

insomnia, exhaustion, cramps, hypo-immunity, gastro-intestinal complaints, nervous irritation, high blood pressure, and defective libido (Burisch 2010).

This multitude of different burnout effects must be analyzed and viewed in a holistic context. Such an analysis will identify symptoms as competent feedback loops indicating a defect. Symptoms are useful in determining the need for and specificity of the requisite interventions. In concrete terms, this means initiating involuntary processes of a helpful kind.

What is so special about unconscious, involuntary processes that produce undesirable results? More powerful than voluntary processes, they generate an automatic suction effect. Voluntary and conscious reactions should work in tandem with involuntary and unconscious reactions in an optimized process of cooperation. The things that stress people form part of their loyalty value system, which in turn forms part of their identity. Nothing should be left out; instead, all subsectors should be integrated. Unconscious and involuntary processes should be translated and adapted to existing values and needs. In constructivism, no objective truth exists, meaning that everyone internalizes experiences on the basis of their selective perception, appraising them after the stress has been processed. It is, therefore, all the more important to find out what one's own truth is through communication and feedback (Schmidt 2011).

The following questions may be helpful in this context:

1. Which of your own needs have been neglected?
2. Which of your abilities remain underdeveloped?
3. What objectives are unrealistic?
4. Which tenets of faith and which thinking patterns are dysfunctional?
5. Which environmental conditions are a burden?
6. What information is still missing?
7. What can be changed at the best possible cost–benefit ratio?
8. How can I regain a part of my freedom/autonomy?
9. Which incongruencies should I resolve?

The way in which individuals answer these questions clearly shows that anyone may be hit by burnout. The first thing one should be aware of is that burnout may hit many people: excessive commitment may always lead to exhaustion. The second thing you should be clear about is your occupation, the question being what intrinsic motivation as a motivation that comes from inside an individual prompted you in your choice of a job. In a third step, your self-assessment should be modified so as to correct any excessive demands with regard to your intellectual capability, mental stability that describes either a level of cognitive or emotional well-being, physical robustness, partnership, family, job environment, etc.

To prevent burnout, care should be taken to live a healthy life, including sufficient sleep, physical activity, healthy nutrition, moderation in the consumption of alcohol, etc., relaxation techniques, hobbies, and cultivating relationships.

Any development of self-regulation is predicated on self-observation (Kanfer et al. 2000; Bandura 1991). The starting point is to break with automated routines by focusing on a behavior that is to be influenced. This behavior is registered in the context of

a situation, and observations are compared with internal standards and personal objectives. Such self-observation serves two purposes, self-diagnosis and self-motivation. Systematic self-observation yields important information about one's own personality and its impact, thus enabling people to control their own behavior better (Bandura 1991). Self-motivation is brought about by setting yourself goals that are increasingly difficult to attain while keeping your own actions under close observation (Bandura and Cervone 1983). In addition to these aspects, communication of self-efficacy can buffer and promote self-actualization (Emold et al. 2011).

People who understand their role in this way become "scientists for their own cause," although they can never gain more than a subjective image of objective reality. Thus, continuous critical reviews acquire outstanding importance in the identification of burnout (Bortz and Döring 2002).

12.6.3 Coaching to Support Communication

One of the universally valid rules of behavior in the prevention of burnout is this: "Lessen overload and increase training in communication and management skills" (Bedell and Lennox 1997). In this context, coaching may be used as an interdisciplinary process of counseling (meta-communication featuring derived communication strategies that exert their influence at all three of the levels described before). In his study to examine the efficacy of client-centered coaching, Künzli (2005) describes the following effects that may be attributed to the use of coaching:

1. Managers feel relieved.
2. They develop fresh perspectives.
3. Their reflection, communication, and leadership competence improves.
4. Managers act more effectively.

Management coaching is beneficial to individual managers and supports the prophylaxis of burnout. However, there is no theoretical material or empirical research to document this.

Person-centered coaching (Joseph 2006, p. 47) originated from the founder of conversation psychotherapy and client-centered counseling, the American professor of psychology, Carl Rogers. In different cases and studies, he demonstrated that his principles of congruence, acceptance, and empathy on the part of the counselor are a prerequisite for the success of various forms of counseling. This client-centered approach is far more effective than other methods and techniques used to initiate processes of change. Characteristically, the process mobilizes cognition away from rigid valuations toward spontaneous feelings and experiences. Change crucially depends on individual self-updates (Rogers 2008, p. 74 onward).

Corporate coaching promotes a variety of changes in professional life, the objective being to adapt the development of managers to the characteristic features of a company and enhance their responsibility for themselves and their tasks at the same time. As it affects people's personalities as a whole, the influence of coaching

extends to the professional as well as the private environment. Positive effects may include, for example, stress relief and changes in the conduct of relationships or in communication (Wirkner 2006, p. 78).

Although it was assumed for a long time that emotions are an item to be neglected in a company, several studies have confirmed that, if employees feel positive emotions toward their company, absences will be reduced to a minimum, efficiency at work will increase, the collaboration of teams will improve, and lasting customer relations will benefit (Straumann and Zimmermann-Lotz 2006, pp. 144–145).

To quote an example from Germany, the second Marburg study of coaching showed that it is indeed a suitable method for supporting individual needs and mixed issues and levels (Marburger Coaching Studie 2011). Accordingly, coaching appears suitable for preventing burnout by individual as well as institutional solution approaches.

Consequently, the two pillars of burnout prophylaxis are individual self-responsibility and organizational health management. For their part, organizations need to create a corporate culture that permits talking frankly about requirements and capability limits.

12.7 Outlook

Investing in prevention pays: companies that invest in the individual mental health of their employees receive a positive return on investment (ROI). A climate needs to be created in which it is possible to communicate about burnout without any stigmatization.

Competence in communication should be established early in life because it may contribute a great deal toward prevention. Coaching may serve to build and enhance such cognitive competences.

Following the example of reputable cancer centers that already exist, burnout centers might be set up that integrate preventive, medical, psycho-educational, and communicative aspects.

The conclusion is an urgent appeal to address the previously described disturbances in the communication of burnout clients, analyze them, and develop the requisite steps on an interdisciplinary basis.

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Chapter 13
Burnout and Active Coping with Emotional Resilience

Eva Garrosa and Bernardo Moreno-Jiménez

13.1 Burnout: Processes, Transactions, and Emotions

Ever since the first academic presentation of the concept of burnout, the emphasis has mainly been on its dimensional aspects (Maslach and Jackson 1981a). Although burnout—a form of chronic work stress—is typically a long-lasting psychological process, process models only emerged years later (Maslach et al. 1996, 2001; Maslach and Leiter 1997) and they make no reference to personal variables as relevant intervening elements. However, a comprehensive and explanatory view of burnout requires references both to the temporal processes and the transactions that express the interaction among stress factors, burnout, and the individual. It is impossible to describe or explain burnout without considering the personal variables of the people who experience it, which means taking into account the interaction, the transaction, and lastly, coping.

For many years, the study of burnout has emphasized two aspects: the multidimensional nature of the syndrome and the organizational factors of burnout (Maslach and Leiter 2005). Although from the start some authors emphasized the individual differences (Farber 1991; Freudenberger and Richelson 1980; Maslach 1976), studies continued to be focused on environmental factors, without taking intrapersonal

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factors sufficiently into account. When some of the relevant models of burnout (Cherniss 1980; Hobfoll and Freedy 1993; Pines 1993) paid attention to them, it was more easy to explain the levels of burnout. Many data indicate that it is impossible to explain burnout without considering the processes and transactions of people within their contexts, and the active and passive response processes to the organizational environment. Just as it is impossible to elaborate a psychological model of stress without referring to individual differences, burnout cannot be explained without them.

Most of the models of burnout (Cooper et al. 2001; Schaufeli and Enzman 1998), independently of the causes proposed, reveal the importance of individual differences in the response, that is, the levels of burnout range between their total absence and their massive presence. The most constant fact in the study of burnout is that, whereas, in some cases, there is extreme vulnerability to the process, in others, there is high resistance to it (Garrosa et al. 2008); therefore, the essential mechanisms of these differences must be explained. Although there are many models of differential responses to stress (Cooper et al. 2001; Griffin and Clarke 2011), probably the most generally accepted model is the transactional and interactive model proposed by Lazarus and Folkman (1984) in their "appraisal theory."

The theory proposes two components (not two phases): a primary component of appraisal of the situation or context, and a secondary component of appraisal of the available resources and means with which to respond. The first component corresponds to the perception of stressors, the second to the perception of resources; stress is the result of an imbalance between them. The differentiation of the two components is not always easy, although it is necessary to distinguish between them logically (Lazarus 1999): they are mutually interdependent. This proposal is based on the concept of transaction (Lazarus 1999), in which the idea that stress does not consist of either the environment or the individual, but of their cognitively perceived interaction. The result of the appraisal of stress can adopt three main forms: damage/loss, threat, or challenge.

The importance of Lazarus' proposal lies in the introduction of the variable person in the response to stress. Stress ceases to be an automatic and stereotyped process and becomes an idiosyncratic process that is characteristic of each person (Lazarus 1991), an aspect that is frequently overlooked in models of burnout. From this perspective, burnout, a form of chronic work stress, cannot be conceived as an automatic process immediately generated by the organizational context, but as the result of the interaction between the organization and the person. Work conditions alone do not generate the experience of burnout, but instead, it is mediated by the person's set of work orientations and attitudes (Cherniss 1980). Maslach and Leiter (2005) refer to this aspect when they allude to burnout as a kind of work stress concerning person–work inadequacy, but this model only considers inadequacy as the result of the incongruence of competences–demands, not as a global form of the incongruence of a person's beliefs, goals, and values. In the "job–person fit" model, incongruence occurs between the competence and demand variables, without expanding to include the incongruence between the personal and the organizational variables.

From Lazarus' perspective, the concept of meaning constitutes the origin of the transactional process of stress and not only its final result. Meaning and the search for meaning are primary elements of the transactional process (Park and Folkman 1997), and, therefore, the person's belief system determines the process of stress arousal (Lazarus and Folkman 1984). The meaning granted to the context and the situation is the beginning of human experience, made up of cognition and emotion. In this sense, meaning is the result of primary appraisal, of the framework of the transaction and the dynamic reappraisal to which it leads (Dewe et al. 2011). Specifically, this means that expectations and the meaning of work constitute the immediate framework for the onset of stress and burnout. The most important organizational stressors are the work aspects that do not match work expectations or one's personal interpretation of the job (Villa-George et al. 2011).

According to the theoretical proposal of Lazarus (1999), stress is inherent to the emotional response. There is no psychological stress without emotions. As proposed and summarized by Smith and Kirby (2011), stress and emotions are two facets of the same reality, and emotions are the most interesting and informative side. In this sense, from the beginning of the formulation of burnout, the concept was presented as an emotional effect (Maslach and Jackson 1981a, b), the result of an excessively demanding interpersonal context. In this sense, the Maslach Burnout Inventory (MBI) is operationalized as the assessment of an emotional experience, and its first and basic dimension is emotional exhaustion. Thus, the proposal falls within the current approach to emotions as core elements of the response to stress.

However, there is some doubt about whether the concept of burnout in its real operationalization truly assesses the emotional aspects of the response to stress. Enzman (2005) considers that the habitual proposals of burnout really assess workers' fatigue and not their emotional response. As shown in the meta-analyses (Lee and Ashforth 1996) and general reviews (Schaufeli and Enzman 1998) carried out, burnout is predominantly associated with work demands and work load (Maslach and Leiter 2005), which means that the MBI does not really assess burnout as an emotional process, but rather as the effect of work fatigue linked to the organization of work (De Vries et al. 2003).

However, in the current model of stress as an emotional response (Finan et al. 2011), burnout, as a process of chronic work stress, seems necessarily linked to emotional work responses, so it is important to establish the type of emotional responses that are elicited by the responses of chronic work stress and their conjoint effect. The theoretical framework for this purpose also comes from the "appraisal theory" and its application to the work setting, that is, it considers the frameworks of meaning and the value conferred to work and the responses produced in diverse negative work situations and incidents. In this sense, it is important to determine the set of values and the different appraisal patterns of the work situation that produce the emotional responses of stress (Lepine et al. 2006).

For this purpose, it is necessary to start out from a transactional proposal that takes into account the three possible general responses to stress in the work setting: loss, threat, or challenge. Following the model developed by Lazarus (1999), the work response to stress elicits complex emotional responses that are the result of

the transaction between the context and the person, depending on the perceived meaning (Lazarus and Cohen-Charash 2001). That is, work stress not only produces exhaustion, but before that, it produces a complex panorama of negative emotions. From this perspective, the emotional response of burnout is more complex than simple exhaustion and includes other emotional forms, such as sadness, disillusion, despondency, tedium, resignation, irritation, or hopelessness. The accumulative and interactive effect of all of these leads to exhaustion as the core emotional syndrome.

From this proposal, burnout is not exclusively a response of exhaustion, but a complex emotional, transactional response, which depends on the person's system of meanings, the situations and work incidents. This means that the activity of coping is more complex and varied and not exclusively the result of the capacity to resist the quantitative pressure of stress and its burden.

The elaboration of a complex and broad emotional model of burnout requires the consideration of various components. On the one hand, following the current models that consider emotions as action tendencies (Fridja 1986), the emotions elicited at the work setting are guidelines of action toward the organization, basically of approach or avoidance. On the other hand, concerning the necessary presence of self-referred negative emotions, such as shame and guilt, certain aspects of the personal experience of the self must be taken into account (Lewis 2000). Taking both aspects into consideration, the set of negative emotions elicited in the work setting can be considered a specific negative emotional syndrome in itself, similar to that described by Fredrickson and Branigan (2005) for positive emotions, in this case, characterized by processes of exhaustion, rejection, and distancing. In any event, the burnout syndrome cannot be reduced to an emotional syndrome even though this is an essential part of the whole.

13.2 Coping, Stress, and Burnout

If there can be no stress without transaction, there cannot be any burnout without coping. Lazarus said, "where there's stress, there's coping" (1990, p. 11), and, transferring the proposal to burnout, we would have to say, there is no burnout without coping, and that the onset and maintenance of burnout indicates a failure to cope. In general, the definitions of burnout underline organizational factors and occupational forms of chronic stress as the strictly direct causes, but as in real work, it is impossible to totally preclude stress factors, the onset of burnout does not depend so much on chronic work stress factors, but on the failure to manage them, on the absence of effective ways of coping. From this perspective, the absence of effective ways of coping is a decisive element in the presence of burnout, but coping has not been a central element in the studies of burnout (Pines 2009), maybe because the social psychology of burnout has been underlined, and not the clinical psychology of the process.

Research on the topic of coping began in the 1970s, starting with the first works of Lazarus (1966), as a way of including conscious and intentional cognitive and

behavioral conduct in the management of stress (Folkman and Moskowitz 2004). One of the most habitual definitions of coping is the one proposed by Lazarus as "the constantly changing cognitive and behavioral efforts a person makes to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (Lazarus 1999, p. 110). The definition underlines coping as a transactional and interactive process, that is, characteristic of each person and in specific situational contexts. Simply stated, coping is a person's response to the experience of stress, therefore, it depends on this experience. Stress and coping are two interdependent processes.

One of the most habitual criticisms of this type of definition is that it restricts coping to intentional and conscious efforts (Snyder 2001). Responses to stress are not only intentional, the result of people's conscious effort, but of their set of psychological responses, which include daily skills, routine behaviors, and competences and resources, that is, all their adaptive capacities (Aldwin 2007).

In this sense, the importance of the processes of leisure and, in general, of recovery has been underlined with regard to ways of coping (Iwasaki and Schneider 2003). Currently, various authors defend the organization of leisure and recovery as an active form of coping (Schneider and Wilhem 2007). The process of recovery has been described as the series of activities outside of work that allow people to disconnect from work and to increase their well-being, mainly through the activities of psychological distancing, relaxation, experiences of development, and control of free time (Moreno-Jiménez et al. 2009). In this sense, the activities of recovery would prevent the depletion of the person's resources and of their effect on burnout, as presented in the conservation of resources (COR) model (Hobfoll 1989).

Many ways of coping have been differentiated and they depend on the theoretical approach chosen. From the start, Lazarus and Folkman (1984) established two important ways of coping: problem-focused coping and emotion-focused coping. Whereas the first focuses on modifying the situation, the second focuses on modifying the person's cognitions and emotions, but neither predominates over the other, rather it depends on the situation and the moment of the process. Many proposals have been made based on this organization of the types of coping (Billing and Moos 1981; Carver et al. 1989; Skinner et al. 2003). Frequently, this broad and general categorization has been replaced by more concrete and specific categories, which has led to a proliferation of ways of coping (Aldwin 2007; Dewe et al. 2011), such as humor or religion.

Pines (2009) considers that the application of the ways of coping to burnout have been excessively influenced by the study of coping with stress. Instead, she proposes some ways of coping, derived both from the theory of burnout and of coping. She proposes that coping with burnout has two essential modalities: active or passive. Active coping attempts to change the causes of burnout, whereas passive coping attempts to avoid the situation. In turn, each one of them is divided into outward coping and inward coping; that is, aimed toward the direct causes or toward the responses to burnout. To assess this theoretical proposal, the author has proposed a 13-item questionnaire (Pines 2009, p. 263).

Based on a transactional model of burnout (Cherniss 1980; Garrosa et al. 2008), the study of burnout as a process cannot be carried out without taking the aspects of coping into account. In fact, there are many direct or indirect references to coping in the study of burnout, sometimes explicit and other times implicit. Thus, for example, in his model of the development of burnout, Cherniss (1980) introduces the third phase, distancing, as a result of a defensive way of coping. According to Schaufeli and Enzman (1998), avoidance coping explains between 5 and 10% of the variance of emotional exhaustion and depersonalization, whereas active coping explains 15% of personal accomplishment, which confirms other general studies that show that problem-focused coping is related to a decrease in the stressor, whereas emotion-focused coping is related to an increase in strain (Day and Livingstone 2001; Sears et al. 2000). A study by Peeters and Rutte (2005) on burnout with primary school teachers shows that problem-focused coping can be effective in situations of high work demands. Leiter (1991) proposed burnout as the conjoint result of stress factors and ways of coping.

Coping strategies and coping style have been differentiated: the former are situationally specific forms of strategies, whereas the latter are relatively stable forms that indicate stable personal variables. There is sufficient research to state that some forms of coping do not come from the direct nature of the problem, but from personal styles (O'Driscoll et al. 2009. Therefore, Jang et al. (2007) propose that coping styles are related to personality.

The important and critical goal is not to describe ways of coping, either positive or negative, associated with burnout—although they may be important, illustrating, and even necessary in some aspects—but to determine the function of coping in the process of burnout. As described in the reference work of Schaufeli and Enzman (1998), burnout is the result of dysfunctional coping, considering coping as a set of characteristics of resistance to stress (Costa et al. 1996).

However, this theoretical framework needs empirical research to determine whether the effects of coping on burnout are direct, moderating, or mediating, and it needs methodologies that explain its causal effects, such as studies of diaries and longitudinal studies. Likewise, the qualitative study through in-depth interviews and the use of narrative methodologies serves to determine more accurately the real effects of coping on burnout (Aldwin 2007). This extension of methodologies and procedures could doubtless provide general answers to the function of coping in burnout, but it would also no doubt reveal the complexity and variations of the effects.

Ways of coping are not only aimed at suppressing or decreasing the sources of stress or accommodating them, but, in some cases, they are aimed at maintaining and increasing them. This is what happens when the context is perceived as a challenge or a personal or professional opportunity, which extends the concept of coping to the contents and developments of positive psychology (Dewe et al. 2011). The concept of stress-related growth is a formulation of this approach (Park et al. 1996).

There are different ways of coping that can be described within the framework of Positive Psychology. Positive coping (Dewe, 2008) is described as the search for

meanings and perceptions that generate positive emotions and behaviors in the work setting, that is, those that lead to a state of communicative well-being, a professional and personal development, and more personal experiences and resources that increase professional competence (Hobfoll 1998). Proactive coping was initially described by Aspinwall and Taylor (1997) as a way of anticipating the onset of problems and their suppression; in this sense, it is proactive behavior. It has been defined as "an effort to build up general resources that facilitate promotion towards challenging goals and personal growth." The main characteristic of proactive coping is the improvement of quality of life (Greenglass 2002; Schwarzer 2001) and, according to Aspinwall and Taylor (1997), it would consist more of the management of goals than of risks.

Other ways of coping related to Positive Psychology are anticipatory coping and preventive coping, both focused mainly on demands and the situations in which they normally occur. Like proactive coping, they are oriented toward the future, but they are characterized by anticipating foreseeable events, whereas proactive coping provokes the occurrence of events and situations that would not normally occur.

Coping cannot be reduced to a mere set of people's characteristics and the form of their activity within the context, but rather, specific and relevant socio-cultural aspects of coping must be taken into account. In her monograph on stress and coping in 2000, Carolyn Aldwin initially introduced a chapter on this topic, denouncing the scarce number of investigations and developments, theoretical and empirical, dedicated to this theme. In her 2007 edition, she admits some developments achieved in recent years, but still acknowledges the scarce study of coping. In the past few years, social ways of coping, which are considered collective coping aspects, have been introduced, for example, "relationship-focused," "collaborative," or "communal" coping (Berg et al. 2008). Although there are differences between the models, they all emphasize that the work of coping is not exclusively individual, but instead, it shares interpersonal resources, and some of them are strictly social and institutional.

The approach is clearly relevant from the perspective of occupational health psychology, whose immediate context is not isolated work, but collective work in formal and informal groups. Coping with work stress and with burnout develops and is influenced by the corporate culture that is typical of each organization. Aldwin (2007) made the sharp observation that, whereas the habitual psychological models of coping underline specific factors or interpersonal variables, other approaches of the social sciences have emphasized the cultural models that act as perceptive frameworks and a formal reactive. In this sense, Markus and Kitayama (1994) have noted that coping behaviors are culturally regulated. The organizational culture can influence coping in three ways:

1. It models the factors that can be perceived as stressful.
2. It affects the chosen ways of coping.
3. It provides institutional mechanisms to deal with stress factors and burnout.

From this perspective, the corporate culture itself is the necessary framework for ways of coping with stress and burnout.

Coping behaviors are not only situation-specific, nor are they only the result of personal variables, but instead, part of their variance comes from the organizational culture and the corporate climate (Cardador and Rupp 2010), understood as the set of values, goals, and symbols that are learned, shared, and practiced within a company. The effectiveness of the practices of coping with burnout is partially determined by their suitability to the corporate organizational culture.

13.3 The Model of Emotional Resilience

People have the biological capacity and psychological characteristics necessary to build their own environment, and this aspect combines with the human capacity to anticipate future emotional consequences and to reflect on one's potential to solve the problem. This capacity to anticipate and self-reflect reveals a very important aspect of human functioning, the capacity to intentionally self-regulate one's emotions and actions to achieve one's goals or solve the challenges of life. From this perspective, the capacity of self-regulation (Caprara and Cervone 2000) includes the competence of appraising one's own actions with regard to personal standards, planning, and setting goals aimed at reinforcing personal efficacy and motivating positive self-assessment, mechanisms that are functionally interrelated. This proposal leads to the idea of the reciprocal relation between individual self-regulation and social environment, which contributes to people's development, personality, and potential. People are not passive actors, they respond actively to the environment, they are dynamic, they contribute to the development of their own capacity, and are capable of planning their own actions, on the basis of their emotions. Therefore, personality from this viewpoint is a representative self-regulatory system (Bandura 2001; Moreno-Jiménez 2007).

Self-regulation is considered one of the most important aspects of individuality and a key aspect to understanding the human being. Literally, regulation means change, but it is more than that, it involves the reformulation of processes. It refers to a specific change, a change that involves modification of emotion, thought, and behavior in accordance with one's conscious desires, rules, ideals, goals, or other standards (Gollwitzer et al. 2009).

Within this healthy emotional context, people's resources play an essential role, so special attention has been paid to the positive personal skills inversely related to *burnout*. For this purpose, a model was established of emotional personality variables, which, in its positive dimension, constitutes the model of emotional resilience (MER): hardiness, optimism, and emotional competence. In this sense, researchers attempted to delimit a series of relevant variables to determine and predict the sources of resistance to burnout. Thus, people's hardiness, optimism, and emotional competence were included in the study to produce the MER. The development of this construct is based on a conception of personality as a system of cognitive, emotional, and behavioral processes that interact with each other,

continually undergoing modification, but which also maintain relative autonomy (Moreno-Jiménez 2007). From this model, variables with emotional and motivational components related to positive emotions that promote processes of health and well-being were selected.

It is also based on a personality system characterized by the possibility of self-regulation when setting goals, providing feedback about their achievement, and the capacity of cognitive self-representation (Moreno-Jiménez 2007), as well as the capacity to exert control over one's processes of thought, motivation, and action—a distinctly human characteristic (Bandura 1999)—underlining the active nature of people and the intentional nature of behavior (Baumeister and Alquist 2009).

According to Maslach (1976), burnout involves attitudes, self-appraisal, and the appraisal of others that occurs within the social context, the fruit of social interactions. These relations are emotionally charged; they require emotional and personal competences to control and manage the emotional interaction. Professionals must manage and regulate their own and others' emotions, aspects that involve dealing with thoughts, images, emotions, etc. and which imply a high level of personal resources to solve problems. Therefore, professionals with a broad repertory of strategies will solve a larger number of situations. In particular, these skills are necessary in the case of assistential workers, who need to manage emotions as an important part of their work, in addition to responding to the physical and mental demands of their job. These professionals must have the emotional and personal competencies that allow them to plan, manage, and regulate their needs to express the desired emotions during the interpersonal transactions in the workplace (Maslach et al. 2001). From this perspective, burnout is an indicator that the workers were not able to adequately manage their emotions when interacting with the clients or users. In contrast, the expression of emotions, positive emotions, and sensitivity toward others' emotions can promote commitment, efficacy, and personal accomplishment (Bakker and Leiter 2010; Garrosa et al. 2011). Ultimately, emotional resilience can act as a protective factor in the face of burnout and it is positively related to engagement (Garrosa et al. 2011).

13.3.1 Hardiness

Hardiness is an attitude toward life that can be operationalized in three essential *hardy attitudes* (Kobasa 1979; Maddi 1999): *commitment*, *control,* and *challenge*, and in a series of strategies or *hardy skills* to solve diverse life situations, stress, and to modify negative moods. Hardy skills include diverse coping strategies, and social interaction strategies, as well as self-care practices. As noted by Kobasa (1982), individuals are not mere victims of change in the environment, but instead they plan an active and constructive role in the processes of stress to modify it. Hardy individuals are more likely to perceive changing situations as a challenge instead of a

threat, to engage in work and in themselves, to feel greater control over their lives (Kobasa 1982).

The concept of hardiness derives from existential psychology, from the definition of the concept of courage, which emphasizes the interrelations of beliefs about oneself and the world based on commitment, control, and challenge. From this perspective, individuals are conceived to be people who continually and dynamically construct their own personality, modifying actions, and who consider that change associated with situations of stress is a natural way of life.

Hardy individuals are characterized by their tendency to engage in life events (personal and work area, etc.), to perceive themselves as having the control to modify situations, and they consider change to be a natural characteristic of life. Individuals who score high in control, challenge, and commitment are therefore hardy (Maddi 2002). Hardiness is an important personality characteristic that affects the relationship between stressors and strains, and many studies have shown its relevance to health and performance (Eschleman et al. 2010). Therefore, these attitudes are interlinked and produce the resistance to stress style (Kobasa 1982); thus, the attitudes of engagement, control, and challenge are not a set of static traits, but instead, these characteristics affect the individuals' action mechanisms, so they even profit from situations of stress (Eschleman et al. 2010; Garrosa et al. 2008).

The action mechanisms of hardiness involve cognitive flexibility, the appraisal of situations as less stressful, understanding events, differentiating events that cannot be changed from those that can, acting decisively when the situation can be changed, and accepting the unchangeable. Hardiness leads to the transformational coping style that allows one to face stressors optimistically and actively (Eschleman et al. 2010), it can also indirectly affect coping (i.e., through its influence on social support), and, lastly, it favors the disposition toward healthy lifestyles that increase the capacity of resistance and physical health (Maddi 1999). For example, the study by Garrosa et al. (2008) integrates previous research on hardy personality, socio-demographic variables, job stressors, and risk-inducing burnout. Specifically, the hardy personality sub-dimensions explained diverse burnout sub-dimensions. Control and commitment were found to be significantly associated with protection from job burnout. Challenge was also found to be negatively associated with lack of personal accomplishment. Similar results were obtained with the application of more advanced statistical analyses, such as the application of neural networks (nonlinear statistical data modeling or decision making tools) to the study of hardiness and burnout (Ladstätter et al. 2010).

Ultimately, as resources, hardiness and coping play a relevant role in decreasing vulnerability to burnout. Control, challenge, social support, and active coping are negative predictors of nursing burnout, indicating that nurses with these resources have less burnout. Also, active coping has an inverse temporal effect on depersonalization and lack of personal accomplishment (Garrosa et al. 2010). These results show that hardy individuals, when faced with difficult, problematic, or challenging life situations, do not flee or escape, but they face them actively; they think that they can personally learn or profit from all situations. Thus, hardy individuals use active and direct coping forms, which are inversely related to avoidant or regressive coping.

Hardiness has a healthy effect (Eschleman et al. 2010; Maddi 2002); it is positively related to optimism (Garrosa et al. 2011; Scheier and Carver 1987), and negatively to stress and burnout (Garrosa et al. 2008, 2010; Ladstätter et al. 2010; Rowe 1997). Hardiness is positively related to active coping and seeking social support, and negatively to emotion-focused coping (Boyle et al. 1991; Garrosa et al. 2010; Ladstätter et al. 2010). According to Kobasa (1979), the effect of hardiness on health and stress is mediated by one's appraisal of the situations and the coping mechanisms used. Hardy people's tendency to perceive stimuli as opportunities for challenge increases their optimism with regard to their own skills to solve situations. Research has also revealed an association between hardiness and the use of problem-focused coping strategies.

13.3.2 Optimism

Optimism has to do with expectations about the future, the hope that allows us to perceive events as manageable. Seligman (1975) has shown that when we perceive a situation as uncontrollable and we believe we can do nothing to change it, a feeling of helplessness is generated, which has three types of negative consequences: it decreases our capacity to change situations, it increases our emotional alterations, and it blocks our capacity to perceive reality.

Optimistic people have a positive physical disposition and can see things with the expectation that they will be solved effectively. These emotions and thoughts will have a great impact on one's personal goals, on the definition of desired values, and on self-regulation to achieve goals in one's personal life and work (Carver 1979). Optimists make a continuous effort to achieve their goals, using coping strategies aimed at the problems. This way of coping and addressing problems has important implications in a person's life. The results of research show that the optimistic disposition is related to the achievement of goals and to active and effective coping strategies (Carver and Scheier 2009). In contrast, pessimistic people focus their attention on negative emotions; they distance themselves from or avoid situations.

Optimism seems to be a disposition (Carver and Scheier 2009) that involves skills that can be learned (Seligman 1998). From this viewpoint, what people think when they fail is determinant; according to research, this is the key to persistence and resistance to failure. Errors or difficulties are not impossible barriers for the optimist; difficulties can be overcome and do not prevent one from reaching the final goal, the desired emotion. When explaining the causes of failure, optimists resort to external, specific, and unstable factors. Thus, their self-esteem is not upset, they feel capable of acting to modify the course of events and obtain positive and predictable consequences from their actions.

Optimism can protect one from depression, it can increase the level of accomplishment, it can emphasize the feeling of well-being, and protect one from stress and diseases (Rasmussen et al. 2006). Optimism correlates with health, it improves

the functioning of the immunological system through the absence of negative emotions and the promotion of healthy behaviors (Seligman 1998; Carver and Scheier 2009).

It seems that optimism acts through diverse mechanisms (Carver and Scheier 2008):

1. Positive illusions, a stronger recall of past favorable experiences.
2. The capacity to relativize explanations and to question pessimistic formulations.
3. Maintaining hope, formulating clear goals, and having a view of obstacles as challenges to overcome.
4. Positive expectations about the future that help to appraise the present and events that have not yet happened.
5. Coping with unavoidable events that provoke distress, providing meaning that allows one to take advantage of the experience for one's own development.
6. Seeking part of the responsibility and an active stance in the face of stressful life events improves the levels of competence and helps to face situations as they occur.
7. Acceptance in the case of difficult situations, instead of struggling with the inevitable, and committing to one's values, overcoming the barriers that emerge, and aiming toward achieving one's personal goals.

This last point might be the key: accepting and committing to our values despite the difficulties; understanding this mechanism and, particularly, providing some meaning help to overcome situations of distress.

Optimism can be linked to higher workplace performance and lower burnout (Garrosa et al. 2011; Riolli and Savicki 2003). Optimistic people are more likely to make a plan of action for difficult situations, are less likely to give up, and have a more positive outlook on stressful situations (Seligman 1998). Optimism is positively associated with affective measures of employee attitudes, such as increased job satisfaction and organizational commitment (Segerstrom 2007). For example, in the study Garrosa et al. (2011), optimism had a main effect on all dimensions of engagement, emotional exhaustion, and lack of personal accomplishment, but not on depersonalization. These results confirm the positive effect of optimism to prevent burnout and to evoke engagement.

13.3.3 Emotional Competence

Emotional competence (EC) includes a series of capacities that involve knowledge of one's own emotions, the skills to differentiate and understand others' emotions, the skill to use a broad and varied vocabulary in the expression of emotions, the capacity to empathize, skills to differentiate between internal and external emotional expression, the capacity to use adaptive coping strategies for negative emotions or stress, knowledge about emotional communication within diverse social relations, and the capacity of emotional self-efficacy (Saarni 2000). When applied to work,

EC consists of transferring this potential to the work world. EC is something that is achieved and used to function in an emotionally effective way with regard to goals and objectives.

Saarni's (2000) perspective emphasizes the context that surrounds EC and includes within it the person–situation interaction. EC involves taking into account people's motivation to commit or establish relations that involve emotion, the type of contextual demands, values, and beliefs that people bring to their emotional experience. Saarni grants more importance to the processes of learning and development and also includes opportunities and the exposure to environments to learn emotional processes and schemas, and she considers that EC is a dynamic process.

Emotional competence is a verification of self-efficacy in the use of emotions in social interactions (Saarni 2000). From this viewpoint, people respond emotionally, through their knowledge of their own and others' emotions, regulating their emotional experience toward the achievement of results or goals. The desire to achieve results or goals integrates the commitment to one's personal morals.

The essential and most important aspects of emotional development include processes of behavioral self-regulation and coping, expressive behavior itself, and the processes of social relation.

Among the consequences of EC are effective management of one's own emotions, a feeling of subjective well-being, and the capacity to resist stressful situations (Saarni 1999).

1. *Control and management of emotion.* Coping strategies are essential in order to control and manage emotion. Emotionally mature people can control and manage their emotions positively; for example, they use physical exercise when they are in a negative mood, and they avoid using food to modify it, because they know that eating does not modify mood effectively. They use positive coping strategies with long-term beneficial effects on health. Emotionally mature people know that they can modify their mood to their own benefit.
2. *Subjective well-being.* Emotional self-efficacy is closely related to a person's appraisal of well-being and happiness; the tendency toward well-being has a lot to do with the acceptance of one's own emotional experience and honesty. Positive beliefs about oneself are associated with positive emotions and with the necessary energy to achieve one's important goals.
3. *Resilience.* The human capacity to deal with, overcome, and be strengthened or transformed by adverse experiences. In this sense, this process goes beyond the simple rebound or capacity to elude these experiences, because it allows one to be empowered and strengthened by them, which directly affects one's well-being and quality of life. Resilience is linked to development and human growth, including differences in the developmental stages and gender differences. Resilient people seem capable of facing stressors and adversities, reducing the intensity of stress and producing a decrease in negative emotional signals, such as anxiety, depression, or anger, and increasing curiosity and emotional health, thus showing that resilience is effective not only to face adversity, but also to promote mental and emotional health. Positive emotions seem to lead to higher levels of resilience

(Fredrickson 2009). Likewise, resilience also partially achieves its effects through the generation of positive emotions. The difference in positive emotions accounts for these people's higher capacity to recover from adversity and stress, prevent depression, and continue to grow (Fredrickson and Cohn 2008).

Ultimately, resilient behavior requires preparation, living, and learning from experiences of adversity. Resilience is produced as a function of social and intrapsychic processes. Nobody is born resilient, nor is resilience acquired naturally; therefore, it depends on the processes of interaction of the subject with other human beings and on internal processes (Saarni 2000). In this sense, EC could facilitate these processes, and it is an essential element for the development of resilient behaviors.

Therefore, EC is particularly important in professions where people must interact with clients (Garrosa et al. 2011), these factors should be a part of the workers' professional competence, and workers should be duly trained for this. EC contributes much to the quality and efficacy of the service, to the maintenance of positive communication and positive interpersonal relations in the organization, and to the healthy culture of the organization.

McCullough et al. (2001), for example, have shown that emotional incompetence deteriorates, obstructs, and/or alters adequate and effective communication between the nursing professional and the patient. In a similar vein, Heron (1990) describes EC as a necessary status among professionals of the health sphere, where interactions with patients are not contaminated by the effects of the professional's own anxiety and the accumulated anxiety of past experience. The deficit of some EC skills is also related to burnout (Garrosa et al. 2011). The model of Cherniss (1993) established a cause–effect relation between people's inability to develop feelings of competence or personal success and the burnout syndrome. Other studies show that successful executives are characterized by having more self-control, more responsibility, more fidelity, better social skills, and they establish relations with more people and take advantage of diversity (Leslie and Van Velsor 1996). Likewise, other studies have shown that, to the extent that workers have more skills to discriminate emotions, empathy, and to express their emotions verbally, they feel greater job satisfaction, and burnout can be prevented (Garrosa et al. 2011).

Emotional competence has very effective implications in the workplace (McClelland 1999), especially with the generation of a positive and effective group climate (Kelner et al. 1996). It is also related to productivity, and to workers' physical and psychological health and well-being within the organization (Cherniss 1993). Workers' EC favors the creation of a culture of respect and care among the workers and towards the clients, a considerate managerial system, greater adaptation to work demands, an effective and flexible communication system, more effective management of the organization, and acceptance of emotional expression (Garrosa et al. 2011).

The results with the MER show the relation between personal resources (optimism, hardy personality, emotional competence) and burnout and engagement. This model proposes the initial step in understanding the link between these variables, diminishing burnout, and reinforcing engagement (Garrosa et al. 2011). Figure 13.1 shows the representation of the optimal function of MER.

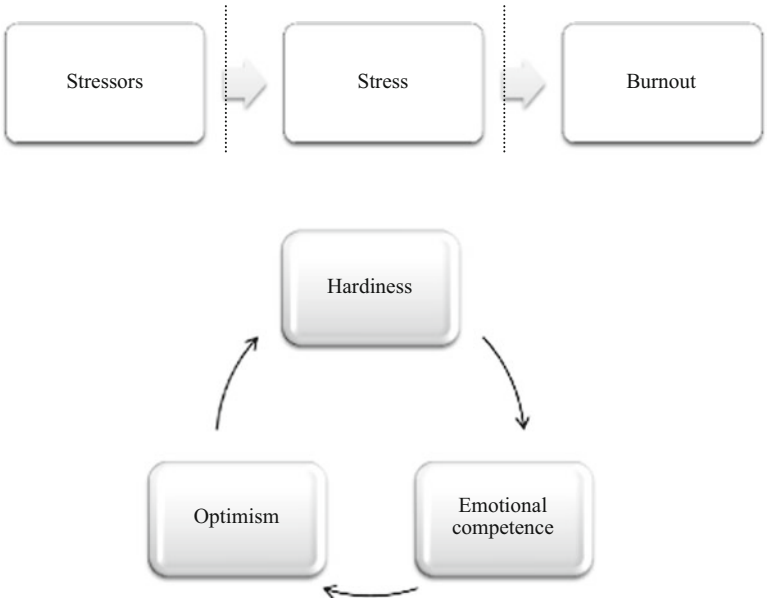

Fig. 13.1 Model of emotional resilience in the prevention of burnout

13.4 Practical Implications

Educating and promoting emotional resilience involves dealing with hardiness and promoting a life attitude of commitment, control, and challenge. This perception of the world, of others, and of oneself involves a series of skills to solve diverse life situations and stress, and to modify negative moods. These attitudes include diverse coping strategies, and of social interaction, as well as self-care practices. Hardiness has to do with learning to appraise changing situations as opportunities and challenges, not as dangers.

People with these characteristics engage in work and people. Likewise, the perception of control over one's life helps to manage stressors more appropriately and to make the most positive decisions for the individual (Kobasa 1982). People with these characteristics of resistance do not avoid situations or just passively bear negative events, they are capable of making decisions for their own benefit and for that of the organization, as well as pointing out unfair situations or situations that generate distress. They are not passive people, who resist without criticizing; on the contrary, they are willing to change negative situations and they try to target health and well-being, modifying the aspects that can lead them astray from their goals.

Likewise, another important element is to promote optimism, especially the generalized expectations that things will work out positively (Carver and Scheier 2009). From this perspective, professionals learn that action will have a big impact on their

personal goals, on their definitions of desired values, and on their processes of self-regulation (Sundstrom et al. 1990). Learning optimism involves a process or mechanism of self-regulation that people use to achieve goals, to discover the barriers that may emerge on the way, and to choose the most adequate strategy.

An optimistic attitude toward life increases the probability of maintaining a continued effort to achieve one's goals, and persistence and determination in one's actions. From this viewpoint, professionals learn that an optimistic disposition is related to results and to active and effective coping strategies (Luthans et al. 2004). The proposal presented herein is to achieve the goals set by the person and the organization.

The effective optimist is capable of understanding a situation critically, and of openly indicating which elements do not correspond to the organization's set of ethical values or to their own personal goals and that need to be changed. In the work setting, optimistic people keep their hopes up, but are critical of the situations that should be changed and solved, and they work to carry out changes and seek creative solutions.

To develop EC, it is important to work with a series of capacities that involve knowledge of one's own emotions, verbal expression of emotions, and emotional self-efficacy (Saarni 2000).

Emotional competence in the workplace refers to two different but connected levels, the intrapersonal and the interpersonal level. The intrapersonal level involves developing emotional competences and using them personally. Regarding the interpersonal level, these competences extend to the social sphere, to relations with others, to being more effective in one's relations with others.

Workers' EC helps to create a culture of respect, ethics, and care among the workers and toward the clients. This healthy work environment will result in the development of resources that will have a direct relation with workers' positive appraisal, which, in turn, is related to greater effectiveness in interpersonal relations. Likewise, this positive view of oneself has been considered an important resource against work stressors (Hobfoll and Freedy 1993). Maslach et al. (2001) acknowledge the importance of positive feelings in the work setting and with regard to burnout and its involvement in the processes of self-appraisal and self-concept.

The studies carried out reveal that when workers feel they have fewer resources to deal with stress, they are more vulnerable to burnout. When workers have negative feelings about themselves, they may display incompetence in their interpersonal relations (patients/users and coworkers), which can generate difficulties at work. However, workers' positive appraisal when they perceive themselves as having resources is related to efficacy. From the perspective of increasing resources, it is important to promote professionals' assessable aspects, their personal and professional achievements, to increase their positive self-concept and levels of competence and social value, as well as to promote a shared culture of respect and ethics.

To sum up, in addition to the pertinent organizational changes, promoting emotional resilience generates an increase in personal resources that is related to higher self-esteem, higher frequency of positive emotions, and greater EC (Garrosa et al. 2011).

All these variables are dealt with together to develop emotional resilience, which will act as a protective element against burnout and increase the workers' likelihood of developing well-being within the organizations. Resources of emotional resilience are remarkably health-promoting, they are linked to lower scores in stress, positive emotional states, the use of adaptive coping strategies, high scores in engagement and self-efficacy, and greater subjective well-being.

The benefits of this proposal lead to desirable effects in task activity, persistence, cognitive functioning, and creativity, as well as in the quality of the service rendered and in positive interpersonal relations, where it contributes to the development and protection of mutual respect.

People who work in healthy organizations benefit from mutual positive emotions and from others' positive actions by being influenced by them. Lastly, ethical, altruist, and cooperative behaviors are produced, as well as a work environment committed to respect. All of these factors lead to favorable results in the workplace. Finally, we conclude with *some ideas* regarding practical implementation in organizations:

1. Training in coping strategies, social interaction as well as self-care practices. (Coping with work stress and with burnout develops and is influenced by the corporate culture that is typical of each organization).
2. Training in resilience. (People with a hardy personality engage in work and clients).
3. Building up mutual respect within the organization. (EC favors the creation of a culture of respect and care among the workers and toward the clients).
4. Training in dealing with EC.(To develop EC, it is important to work with a series of capacities that involve knowledge of one's own emotions, verbal expression of emotions, and emotional self-efficacy).
5. Co-development of an employee's occupational resources. (A healthy work environment will result in the development of resources that will have a direct relation with workers' positive appraisal, which, in turn, is related to greater effectiveness in interpersonal relations).
6. Positive feedbacks within the organization. (Healthy organizations benefit from mutual positive emotions and from others' positive actions by being influenced by them).
7. Promotion of optimism. (Induces important effects in task activity, persistence, cognitive flexibility, and creativity).

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Chapter 14
Burnout Intervention

Ulla Walter, Martina Plaumann, and Caroline Krugmann

Abbreviations

4DSQ	Four Dimensions Symptom Questionnaire
ADRQL	Alzheimer's Disease-Related Quality of Life
BBI	Bergen Burnout Indicator
BJSQ	Brief Job Stress Questionnaire
BP	Blood pressure
BSI	Burnout Screening Inventory
CBI	Copenhagen Burnout Inventory
CBT	Cognitive behavioral therapy
CES-D	Center for Epidemiological Studies Depression Scale
CHS	Cognitive Hardiness Scale
CIDI	Composite International Diagnostic Interview
CIS	Checklist Individual Strengths
CMAI	Cohen-Mansfield Agitation Inventory
DASS	Depression Anxiety Stress Scale
DP	Depersonalization
EE	Emotional exhaustion
EQ-5D™	EuroQol Group's Standardized Instrument for Use as a Measure of Health Outcome

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ERIQ	Effort-Reward Imbalance Questionnaire
EVL	Evaluatievragenlijst (EVL) Burnout Assessment Questionnaire
GHQ	General Health Questionnaire
HAD(/S)	Hospital Anxiety and Depression Scale
JCQ	Job Content Questionnaire
JSQ	Job Stress Questionnaire
KSP	Karolinska Scales of Personality
LOE	Level of evidence
MBI	Maslach Burnout Inventory
MBI-GS	Maslach Burnout Inventory—General Survey
MBI-HSS	Maslach Burnout Inventory—Human Services Survey
MBI-NL	Maslach Burnout Inventory—Netherlands
MCQ	Multiple Choice Question Paper
MDI	Major Depression Inventory
NHP	Nottingham Health Profile
NL	Netherlands
NS	Not specified
NSM	Neuman Systems Model
OLBI	Oldenburg Burnout Inventory
PA	Personal accomplishment
PAR	Participatory action research
POMS	Profile of moods states
PPA	Personal Projects Analysis Inventory
PSI	Psychiatric Symptoms Index
PSS	Perceived Stress Scale
PWCQ	Psychological Working Conditions Questionnaire
QPS Nordic	Questionnaire for Psychological and Social Factors at Work
RCT	Randomized controlled trial
RMM	Recreational music making
SAI	Stress Assessment Inventory
SAQ	Staff Attitudes Questionnaire
SF-36	Short Form 36 Health Survey
SMT	Stress management training
SOC	Sense of Coherence Scale
STAI	State–Trait Anxiety Inventory
TMD	Total moods disturbance
UATW	Unable to work
UBOS	Utrecht Burnout Scale
UCL	Utrecht Coping List
VAS	Visual Analog Scale
VBBA	Dutch Questionnaire on the Perception and Judgment of Work
WPQ	Work Performance Questionnaire

14.1 Risk Factors and Prevention Strategies

Burnout is a work-related psychological syndrome that has primarily been diagnosed in health care workers to date (Valente et al. 2011, etc.). However, a rising incidence of burnout can now be observed in individuals in other professional groups. Many attempts at classification of the symptoms of burnout have been proposed in the past decades. Common to all is the inclusion of physical, psychological, and behavioral elements of the burnout syndrome. The symptoms of burnout were first described in the 1960s. The ensuing scientific debate on the subject in the 1970s (Freudenberger 1974) led to changes and additions to the definition of burnout in subsequent years (Awa 2007). Maslach and Leiter (1997, p. 17) proposed a widely used definition of burnout, which states: "Burnout is the index of the dislocation between what people are and what they have to do." These investigators differentiate the following three dimensions of burnout:

1. Emotional exhaustion (EE)
2. Depersonalization (DP)
3. Diminished personal performance accomplishment (PA)

Thus, burnout is a syndrome distinct from "stress" and similar symptoms such as "depression" "fatigue" "anxiety" and "lack of motivation" (Leone et al. 2008). However, burnout can sometimes exhibit phases of association with depression (Deutsches Institut für Medizinische Dokumentation und Information 2010). Although there is still no standardized, universal approach to establishing the diagnosis of burnout, the instruments used for the measurement of burnout yield largely valid, three-dimensional constructs. In order to do so, these instruments must be specifically adapted to the special characteristics of the population group, professional group, language group, and cultural group, which they are designed to assess.

Burnout is more than just stress. According to Cohen et al. (1995, p. 3), psychological stress occurs when "environmental demands tax or exceed the adaptive capacity of an organism, resulting in psychological and biological changes that may place persons at risk for disease." Burnout is a result of the stress underlying social relationships in a professional context. The condition is associated with a reduction of physical and mental health and can lead to diminished performance accomplishment, which can affect work activities, such as patient care (Voltmer et al. 2010). Precise statistics on the prevalence of burnout among the general population are not available. Based on a representative survey conducted in the Netherlands, Zijlstra and De Vries (2001) estimated the rate of clinical burnout among individuals in the workforce to be 7.2%. The prevalence of burnout also varies between and within the different professional groups. In western industrialized countries, for example, 15–43% of nurses are affected by burnout (Kowalski et al. 2010) compared with 5–54% of doctors (Voltmer et al. 2010). According to another study, nearly 72% of pediatric oncologists exhibit symptoms of burnout (Roth et al. 2011). The reason for these measurement discrepancies is the use of

different strategies and instruments of data collection (Nienhaus et al. 2012). Longitudinal surveys revealed that burnout-related risk patterns are particularly resistant to change (Schaarschmidt 2005).

Risk factors for burnout occur at both the individual and the organizational level. Individual risk factors include low self-esteem, low resilience, "helper syndrome," and an external locus of control. High work expectations, high levels of occupational stress, role conflicts, low levels of participation in decision-making, and a lack of resources, social support, and feedback are typical organization-related factors (Voltmer et al. 2010; Maslach et al. 2001; Büssing and Glaser 2000, etc.). These criteria are also considered to be risk factors for occupational stress. Therefore, interventions effective for the prevention of work-related stress could also be effective at preventing burnout. Protective factors against burnout include emotional intelligence, resilience, extraversion, good nature, openness, and a functioning social network, as summarized elsewhere (Awa 2007). The relevance of social capital was highlighted in a recent study (Voltmer et al. 2010).

Thus, burnout prevention strategies may include person-/group-directed interventions, organization-directed interventions, or a combination of the two. However, the work situation is a critical factor that must be taken into account in all burnout interventions. Based on the assumption that the individual and the individual's way of coping with occupational stress play a central role in the development of burnout, person-directed interventions have been preferentially employed over the years. Cognitive behavioral training measures aimed at promoting professional job-related skills, altering work patterns, and developing preventive coping strategies are common elements of person-directed interventions. Other person-directed approaches include interventions designed to encourage the use of social support and to integrate relaxation into daily life as well as to promote health in general. In contrast to person-directed interventions, organization-directed interventions usually focus on modifying workflows, changing task spectrums, and shifting the stress and demand profile by increasing the levels of participation, autonomy, and decision-making power. Organization-directed interventions help to promote empowerment in the workforce and are aimed at reducing stress factors (Leiter and Maslach 2005; Maslach and Goldberg 1998; Leone et al. 2008).

Compared with person-directed interventions, there are far fewer studies analyzing the effectiveness of organization-directed interventions and combined person- and organization-directed interventions. Two of the main reasons for this research imbalance are not only the complexity of conducting organization-directed or combined interventions, but also the difficulty in evaluating their results (Awa et al. 2010; Walter et al. 2012). A systematic review of interventions for the reduction of occupational stress among health care workers identified three burnout studies conducted in the period from 1987 to 2005 (Ruotsalainan et al. 2008). However, the results of the studies were heterogeneous and only one of the studies was an organization-directed intervention. In another systematic review of articles published between 1966 and 2007, nine studies on the prevention of burnout among resident physicians were eligible for inclusion (McCray et al. 2008). These studies investigated

a variety of different interventions, all of which were person-directed interventions at the individual level. Although validated instruments were used in the five controlled trials identified (only two of which were randomized controlled trials), the results were inconsistent (McCray et al. 2008). Another systematic review of intervention programs for burnout prevention that was not limited to any given profession showed that 85% of the person-directed interventions achieved positive effects (Awa et al. 2010). These results confirm the hypothesis that person-directed interventions can reduce burnout, improve occupational mental health, and support the notion that better results can be achieved by conducting person-directed interventions in combination with organization-directed interventions. However, a more recent study based on this review does not support this conclusion (Walter et al. 2012). The present review, which is based on that article, provides an overview of the literature on the effectiveness of person- and organization-directed interventions aimed at reducing burnout.

14.2 Methods

The present review is based on a systematic search of the English- and German-language literature on intervention programs designed for the prevention of burnout. The search was conducted in the electronic databases Medline, PsycINFO, and PSYNDEX in three phases during the overall period of January 1995 to September 2011. The search strategy was based on keywords related to burnout, stress, work, workplace, and prevention, both as free text words and as MeSH (Medical Subject Headings) terms. For further details on the methodology, see Awa et al. (2010) and Walter et al. (2012). In some cases, the lists of references at the end of publications were used to identify additional studies of potential interest that were not identified in the electronic search. This systematic review of the literature was subject to certain methodological limitations. For example, the search was limited to three databases and to two languages. Consequently, potentially relevant publications published in other databases and in other languages may have been excluded. Furthermore, the hand search of the literature was done in an unsystematic manner; thus, other relevant studies may have been overlooked.

All citations identified in the systematic literature search were imported into reference management software (Reference Manager), where duplicate entries were automatically deleted. Two independent reviewers assessed the title and abstract of each identified citation. If an abstract met the inclusion criteria, the full text of the article was procured and evaluated in detail (see Fig. 14.1 for details on the selection process). Discrepancies between the reviewer ratings were resolved by consensus or third-party adjudication.

Primary intervention studies aimed at preventing burnout or reducing the symptoms of burnout were included in the review. The use of burnout-specific instruments was defined as an inclusion criterion in order to ensure optimal comparability of the studies in terms of their endpoints. A second inclusion criterion was the

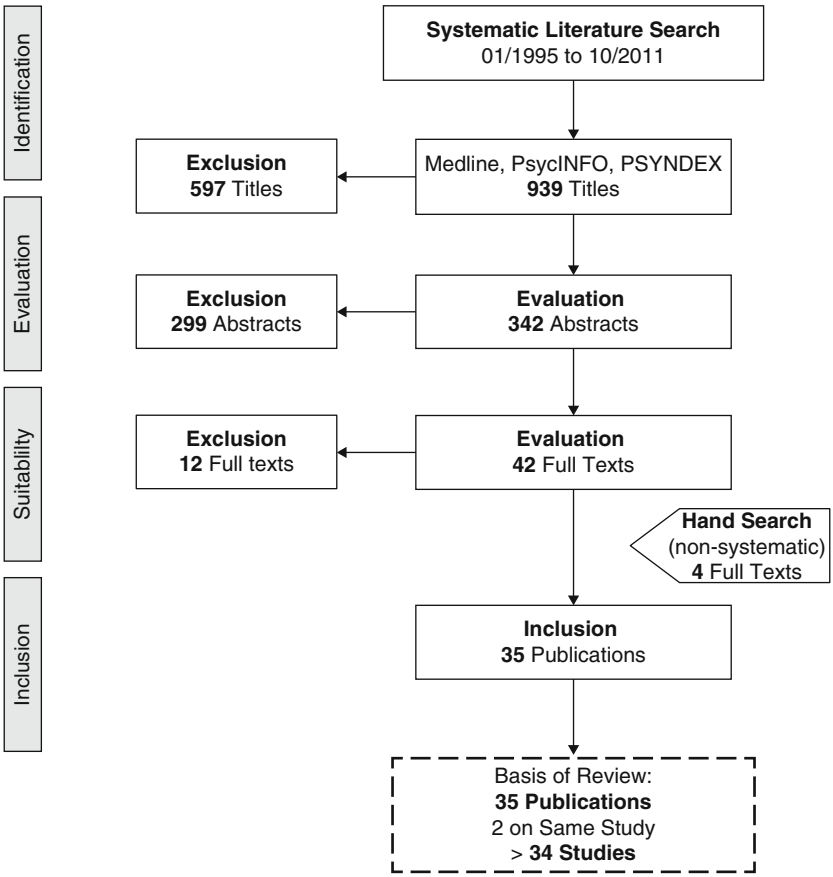

Fig. 14.1 Selection process

collection of data at a minimum of two assessment points (before and after the intervention) to enable pre- versus post-intervention comparison. All relevant publications were included regardless of their study design and target group characteristics. Conversely, studies limited to the analysis of individual risk factors that contribute to the development of burnout, motivation to participate in and/or satisfaction with burnout programs, and approaches to and potentials of burnout prevention were excluded. Relevant studies including all types of target groups, interventions, and study designs were included in order to obtain a broad overview of the available data. The disadvantage of this approach is that it complicates the comparability of the results.

Critical appraisal and data extraction of the articles identified was carried out according to established criteria (Van de Voorde and Leonard 2007). The methodological quality and thus the levels of evidence of each individual study were rated

according to the guidelines of the US Preventive Services Task Force (Harris et al. 2001) as follows:

I: Properly powered and conducted randomized controlled trial (RCT).
II-1: Well-designed controlled trial without randomization.
II-2: Well-designed cohort or case–control analytic study.
II-3: Multiple time series with or without the intervention.
III: Opinions of respected authorities based on clinical experience, descriptive studies or case reports.

The strength of the data was rated as "strong evidence" when the intervention resulted in significantly positive or negative effects ($p \leq 0.05$), and as "limited evidence" when it resulted in nonsignificantly positive or negative effects ($p > 0.05$). A detailed quality assessment based on evaluation of various methodological aspects of the studies using a checklist such as the Effective Public Health Practice Project Quality Assessment Tool for Quantitative Studies, which is recommended by the Cochrane Public Health Review Group (Jackson and Armstrong 2008; Jackson and Waters 2005, etc.) was not performed here.

14.3 Results

14.3.1 Search Results and Classification of the Studies

The systematic literature search yielded a total of 939 publications. Based on their titles, 342 relevant abstracts were selected and read. Forty-three of these abstracts met the a priori inclusion criteria. After reviewing the full texts of the 43 publications, 12 were excluded, leaving 31 studies. Four additional publications were identified in a (nonsystematic) hand search of the literature, bringing the total number of publications using burnout-specific instruments to 35. As two of these publications refer to the same study, 34 studies formed the basis of this review. The individual steps of the literature search and publication selection processes are detailed in the flow chart in Fig. 14.1.

The majority of the 34 studies included in the analysis were conducted in the following three countries: the Netherlands (15; 44%), the USA (4; 12%), and the UK (3; 9%). Of the remaining 12 studies, 2 each (6%) were performed in Australia, Israel, and Sweden, and 1 each (3%) in Finland, Poland, Belgium, Norway, Canada, and Turkey (see Tables 14.1 and 14.2).

Moreover, 23 of the 34 studies (68%) were randomized controlled trials (RCTs). Evidence from these trials was ranked Level I, as shown in Tables 14.1 and 14.2. The other 11 studies (32%) had a quasi-experimental design with Level II evidence. More than two thirds of the person-directed intervention studies had the highest strength of evidence (Level I). The proportion of combined intervention studies with Level I evidence was also very high (60%).

Table 14.1 Study characteristics: person-directed interventions, listed according to level of evidence (LOE) and in ascending year of publication

Authors, country	LOE	Participants	Interventions	Duration	Instruments	Follow-up	Major outcomes Follow-up 6 months after intervention	Follow-up >6 months <1 year	Follow-up >1 year
Ewers et al. (2002), *UK*	I	Forensic mental health nurses	Psychosocial intervention training (PSI)	20 days	MBI	6 months	Burnout ↓*	_	_
Bittman et al. (2003), *USA*	I	Interdisciplinary care workers	Recreational music-making (RMM)	6 weeks	MBI, POMS, TMD	1 day, 6 + 12 weeks	Burnout & depression ↓ *	_	_
Lange et al. (2004), *Netherlands (NL)*	I	Volunteers recruited via newspaper ads	INTERAPY: Internet treatment & supervision program	7 weeks	UBOS, DASS, EVL	6 weeks	Burnout, fear/ depression ↓*	_	_
Salmela-Aro et al. (2004), *Finland*	I	Employees with burnout	Analytical or experiential psychotherapy	10 weeks	BBI, PPA	5 and 6 months	Burnout/negative emotions ↓*, social support ↑*	_	_
Cohen-Katz et al. (2005), *USA*	I	Nurses	Mindfulness-based stress reduction (MBSR), counseling	8 weeks	MBI, BSI	Several months later	Burnout ↓*	_	_
van Dierendonck et al. (2005), *NL*	I	Persons in technical professions	Personal growth training	10 days	MBI	3 and 9 months	Burnout ↓, happiness ↑, emotional intelligence ↑	_	_
van Rhenen et al. (2005), *NL*	I	Telecommunications company employees with elevated stress levels	Relaxation training	8 weeks	UBOS, CIS, 4DSQ	10 weeks, 6 months	Burnout ↓*, fatigue ↓*	_	_

Zolnierczyk-Zreda (2005), *Poland*	I	Teachers	Stress coping, communication and relaxation training	2 days	PWCQ, MBI	1 month	EE ↓*; DP ↔; PA ↑ Social support ↔, Workload/job control ↓*, Physical complaints ↓*	_	_
Blonk et al. (2006), *NL*	I	Self-employed persons on sick-leave	Extensive cognitive behavioral training (CBT)	NS	CIDI, DASS, MBI-NL, UATW	4 and 10 months	EE ↓*, DP ↓* Psychological complaints ↓* Depression/anxiety ↓*	EE ↓*, DP ↔ Psychological complaints ↓* Depression/anxiety ↔	_
Kanji et al. (2006), *UK*	I	Nursing students	Autogenic training, laughter therapy	8 weeks	STAI, MBI, BP, pulse rate	5, 8, 11, and 14 months	Burnout ↔, anxiety ↓* Blood pressure, systolic & diastolic ↓*	Systolic BP ↓*	_
Butow et al. (2008), *Austria*	I	Oncologists at teaching hospitals	Workshop, learning materials on ideal professional behavior and video conferences	4–5 months	MBI	6 months, 12 months	_	DP↓ EE↑ PA↔	DP↓ EE↓ PA↔
de Vente et al. (2008), *NL*	I	Not specified; probably persons from different professions	Individual- and group-directed CBT-based stress management training	4 months	MBI	4, 7, and 10 months	EE ↔, DP ↔, PA ↔	7 months EE ↔, DP ↔, PA ↔ 10 months EE ↔, DP Some ↓*, PA ↔	_

(continued)

Table 14.1 (continued)

Authors, country	LOE	Participants	Interventions	Duration	Instruments	Follow-up	Major outcomes Follow-up 6 months after intervention	Follow-up >6 months <1 year	Follow-up >1 year
Peterson et al. (2008), *Sweden*	I	Hospital employees with increased risk of EE	Self-help group, problem-oriented method	13 weeks	QPS Nordic, OLBI, HAD, SF-36, perceived change in work environment	After intervention, 7 and 12 months	–	Growth potentials ↑* Participation ↑* Perceived support ↑	Participation ↑* Perceived support ↑* Quantitative job demands ↓* State of health in general ↑* EE ↓* Withdrawal tendency ↓
van Straten et al. (2008), *NL*	I	Participants recruited through mass media	Web-based self-help intervention	4 weeks	CES-D, MDI, HADS, MBI, EQ-5D	After intervention	DP ↓, EE ↓, PA ↑* Burnout ↓* in persons at risk of burnout at baseline	–	–
Redhead et al. (2011), *UK*	I	Qualified and unqualified nursing staff working in a low-security mental health unit	Psychosocial intervention (PSI) training	8 months	MCQ, MBI, PSI, auditing of care plans	After intervention	Knowledge ↑*, Attitude ↑*, Burnout ↓ in qualified nurses DP ↓* Burnout ↔ in unqualified nurses	–	–
Bragard et al. (2010), *Belgium*	I	Medical residents	Communication and stress management training	5 months	Interview, VAS, MBI	2 months, 8 months	–	Self-efficacy ↑* Communication-related stress ↓* Burnout ↔	–

Günüşen and Üstün 2010, *Turkey*	I	Hospital nurses with an above-average EE score	Stress management training (NSM), self-help group	7 weeks	MBI	After intervention, 6 months	EE ↓ DP ↔ PA ↔	EE ↑ DP ↔ PA ↔	–
Rowe (2000), *USA*	II	Health care professionals	Training in coping with occupational stressors, refresher sessions	NS	CHS, STAI, MBI	2, 6, 12, 24 and 30 months	EE ↓*, DP ↓*, PA ↑*	EE ↓*, DP↓*, PA ↑*	EE ↓*, DP ↔ PA ↑*
Pålsson et al. (1996) *Sweden*	II-1	Nurses	Systematic clinical supervision	4 weeks	KSP, SOC, burnout measurement	1.5 and 2.4 years	_	Burnout ↔	Burnout ↔
van Dierendonck et al. (1998), *NL*	II-1	Mental health professionals in direct care	Cognitive behavioral training, counseling	5 weeks	MBI	6 and 12 months	_	Burnout ↓*	EE/Equity ↑ PA ↔
Ossebaard (2000), *NL*	II-1	Addiction care center employees	Brain wave synchronizer (brain machine): relaxation through audiovisual stimulation	8 weeks	MBI, STAI	2 and 10 weeks	EE ↓* EE ↔	_	_
Te Brake et al. (2001), *NL*	II-1	Dentists at risk of burnout	Cognitive behavioral training, counseling	1 month	MBI-NL	12 months	_	Burnout ↓*	_

(continued)

Table 14.1 (continued)

Authors, country	LOE	Participants	Interventions	Duration	Instruments	Follow-up	Major outcomes Follow-up 6 months after intervention	Follow-up >6 months <1 year	Follow-up >1 year
Gorter et al. (2001), *NL*	II-1	Dentists at risk of burnout	Cognitive behavioral training, counseling	NS	MBI-NL	6 months	Burnout ↓*	_	_
Cohen-Katz et al. (2005), *Israel*	II-2	Social workers of medical centers	Psychosocial and communication skills development training	8 weeks	MBI	1 and 2 months	EE ↓, DP ↓*, PA ↑* Peer support ↑*	_	_

Significant increase/improvement ($p < 0.005$): ↑*
No significant increase/improvement ($p > 0.005$): ↑
Significant decrease/worsening ($p < 0.005$): ↓*
No significant decrease/worsening ($p > 0.005$): ↓
Unchanged/no difference: ↔

Table 14.2 Study characteristics: combined interventions (person- and work-directed), listed according to level of evidence (LOE) and in ascending year of publication

Authors, country	LOE	Participants	Interventions	Duration	Instruments	Follow-up	Major outcomes after the intervention, 6 months	Follow-up >6 months <1 year	Follow-up >1 year
Boumans and Landeweerd (1996), *NL*	I	Nurses	Changes in work organization: primary nursing	NS	MBI	1 year	_	EE ↔ Autonomy ↔ Communication ↑ Satisfaction ↑	_
Melchior et al. (1996), *NL*	I	Nurses in psychiatric long-stay care settings	Supervision, communication training, changes in work organization	NS	MBI	1 and 2.5 years	_	_	Burnout/deprived feelings ↔ Turnover ↓
Le Blanc et al. (2007), *NL*	I	Oncology ward staff in general hospitals	PAR, communication, social support and coping skills	6 months	MBI-HSS, BJSQ	6 months, 1 year	EE ↓*; DP ↓* Participation in decision-making ↑ Social support ↑*	EE ↓*, DP ↓	_
Duijts et al. (2008), *NL*	I	Health care and education sector employees at risk of sickness absence because of psychosocial health complaints	Employee coaching alone and together with supervisor	7–9 sessions within 6 months	SF-36, GHQ, UCL, JCQ, VBBA, CIS, MBI	6 and 12 months	–	Psychological distress ↓* Need for recovery ↓* Satisfaction with life ↑* Training possibilities ↓*	Sick leave days ↓* Self-rated health ↑* Psychological distress ↓* EE ↓* Need for recovery ↓* Satisfaction with life ↑* Depressive and emotional reactions ↓* Job insecurity ↑*

(continued)

Table 14.2 (continued)

Authors, country	LOE	Participants	Interventions	Duration	Instruments	Follow-up	Major outcomes after the intervention, 6 months	Follow-up >6 months <1 year	Follow-up >1 year
Visser et al. (2008), *Austria*	I	Nursing home staff	Behaviorally-based program, peer support, and accompanying intervention for home residents	8 weeks	CMAI, ADRQL, SAQ, MBI	Immediately after and 3 and 6 months post-intervention	Burnout ↔ Skills, knowledge ↑*	Burnout ↔ Skills, knowledge ↑*	–
Chen et al. (2009), *Israel*	I	Public organization installing new IT system	Resource workshop to enhance adjustment to the new working conditions	NS	Questionnaire, MBI	Immediately and 2 months after intervention	Skills ↑* Social support ↑ Perceived control ↑ Vitality <-> EE ↓* Quantitative workload Qualitative workload	–	–
Innstrand et al. (2004), *Norway*	II-1	Staff working with people with intellectual disabilities	Reorganization of working plans and schedules, lectures	NS	MBI-GS, JSQ	10 months	_	Stress/fatigue: ↓* Cynicism: ↔ Self-efficacy ↑* Job satisfaction ↑*	–

Bourbonnais et al. (2006, 2011), *Canada*	II-1	Hospital health care workers with direct patient contact	Changes aimed at reducing psychosocial risk factors in the workplace	16 weeks	JCQ, PSI, CBI, NHP	1 year, 3 years	–	Burnout ↓* Effort–reward imbalance ↓* Sleep disorders ↓* Decision latitude ↓* Social support ↓*	Burnout ↓* Effort–reward imbalance ↓* Sleep disorders ↓ Decision latitude ↑*
Sluiter et al. (2005), *NL*	II-2	Pediatric intensive care unit staff	Organizational change, communication, feedback, and supervision	3 months	MBI, checklists	After each work shift and at 6 months	EE ↓* Fatigue ↓ Employee health ↑ Communication ↑	–	–
Halbesleben et al. (2006), *USA*	II-3	Federal military fire department	Cognitive behavioral training, stress management training, and social support	90 days (200 h)	MBI-GS, open questions	1 year	–	EE ↓*, DP ↓* Turnover rates ↓ Job satisfaction ↔	–

Significant increase/improvement ($p<0.005$): ↑*
No significant increase/improvement ($p>0.005$): ↑
Significant decrease/worsening ($p<0.005$): ↓*
No significant decrease/worsening ($p>0.005$): ↓
Unchanged/no difference: ↔

14.3.2 Study Populations

The study populations consisted of employed persons in 27 studies (79%), persons responding to advertisements or media campaigns in 2 studies (6%), nursing students in 1 study (3%), and self-employed individuals in 1 study (3%). In the remaining 3 studies (9%), the professions of the participants were not specified. The overall study population included individuals from the fields of health care, interdisciplinary care, technology, and engineering as well as social workers, firefighters, and employees from public institutions. The study populations included persons potentially at risk of burnout because of their occupation, individuals with increased risk factors for burnout, and people who had already suffered from burnout. The small sample size of some interventions may have contributed to keeping small effects below the level of significance.

14.3.3 Types of Interventions

Twenty-four of the 34 studies (71%) included in the review were solely devoted to person-directed interventions involving measures such as cognitive behavioral training, communication training, counseling, supervision, social support and relaxation exercises (Table 14.1). The remaining 10 studies (29%) investigated the effects of combined person- and organization-directed interventions consisting of measures such as changes in work organization or workflows, supervision, and team-oriented coaching (Table 14.2). No relevant studies of purely organization-directed intervention programs were identified during the specified search period.

14.3.4 Duration of the Interventions

The duration of the interventions was specified in 27 of the 34 study publications reviewed (79%). In these 27 studies, the overall duration of the interventions ranged from 2 days to 8 months. In 85% (23) of the 27 studies where the data were available, the interventional duration ranged from 1 to 6 months. Only 3 of the 27 studies (11%) had short intervention periods lasting 20 days or less. The intervention period of one study (4%) was longer than 6 months. Data on the duration of the intervention were missing in 7 of the 34 publications (21%). This reflects the poor quality of the study reports, which often failed to provide exact details of the intervention and specific information on the length of the intervention and data collection intervals. To ensure adequate interpretability of study data, future publications should provide complete, clear, and transparent information on the study methods and findings, as recommended in the Consolidated Standards of Reporting Trials (CONSORT) statement (Schulz et al. 2011).

An exact description of the evaluation period was provided for 31 of the trials (91%). Most of the studies contained follow-up periods of a few weeks. In only a few studies were there were post-intervention surveys up to 3 years. Of the 31 studies with a precisely defined evaluation period, the observation period was 1–6 months in 13 trials (42%), 6–12 months in another 13 (42%), and > 12 months in the remaining 5 studies (16%).

14.3.5 Outcomes

Outcomes of the reviewed person- and organization-directed interventions were measured using standardized instruments in most cases. Self-developed questionnaires were used in a small number of cases. However, detailed information on all outcome parameters was not provided in every publication. This again reflects the problem of low reporting quality, which could be resolved by reporting the trials in conformity with the CONSORT statement (see the Sect. 14.3.4).

In addition to burnout, other measured person-directed outcomes included depressive mood, anxiety, resilience, perceived stress, effort–reward imbalance, and other parameters. Organization-directed outcomes included personnel fluctuation rates, quantitative and qualitative work load, job satisfaction, freedom of action, and participation in decision-making. The patient's general state of health or certain aspects of health such as physical symptoms, sleep disorders and blood pressure were measured in some studies as well.

Interestingly, the person-directed intervention studies rarely included directly work-related outcomes. This is particularly surprising considering the effects of work-related factors on the development of burnout (Kowalski et al. 2010; Maslach and Goldberg 1998; Leone et al. 2008).

14.3.6 Effects of the Interventions

A general increase in the number of studies on interventions for the prevention of burnout has been observed in the past few years. This applies to person-directed interventions as well as combined person- and organization-directed interventions (see Tables 14.1 and 14.2). We did not find any recent studies on purely organization-directed interventions. A list of organization-directed interventions for the prevention of burnout was published by Awa et al. (2010). Both controlled trials and numerous randomized control trials exist in both cases. This is a welcome development considering that evidence from trials of high methodological quality will play an increasingly important role as the basis for recommendations and statements in the future, not only for burnout prevention.

14.3.6.1 Burnout

Not all of the 24 studies of person-directed interventions distinguished among the three specific dimensions of burnout: emotional exhaustion (EE), depersonalization (DP), and diminished personal performance accomplishment (PA).

Burnout, or rather the dimensions of burnout, decreased significantly in 18 of the 24 person-directed studies (75%). Six of the studies (25%) did not find any positive changes with regard to burnout (van Dierendonck et al. 2005; Kanji et al. 2006; Butow et al. 2008; Bragard et al. 2010; Günüşen and Üstün 2010; Pålsson et al. 1996); one study found changes 2 weeks after the intervention, but only in the follow-up study (Ossebaard 2000). The interventions were mainly nonspecific. Half of the studies found a reduction of burnout within observation periods of up to 6 months (6 out of 11 studies), and 2 of the remaining 5 studies showed a reduction more than 1 year after the intervention.

A differentiated analysis of the three dimensions showed that not all interventions achieved uniformly positive results. Changes in the burnout components depersonalization and personal performance accomplishment did not last longer than 6 months. Only one long-term study demonstrates that the positive changes in emotional exhaustion and personal performance accomplishment were maintained for up to 2½ years after completion of the intervention (Rowe 2000). Notably, this intervention included 1-h refresher sessions 5, 11, and 17 months post-intervention.

Combined interventions (person- and organization-directed) achieved a significant reduction in burnout in 7 out of 10 studies (70%). Follow-up was performed at least 6 months after the intervention in 8 studies, 5 (63%) of which demonstrated longer-term positive effects. A prime example is the combined intervention by Bourbonnais and colleagues, who examined the effects of a participatory approach to reducing the negative psychosocial factors at the workplace in a hospital setting (Bourbonnais et al. 2006, 2011). During regular meetings, an intervention team (composed of health care professionals and other staff in the hospital) developed proposals for change and for implementation of these changes over the course of 4 months. The meetings focused on negative factors that are well-known in literature: high psychological demands, lack of freedom in decision-making, lack of social support, and lack of recognition or rewards. Continued reduction of burnout was observed as long as 3 years after the completion of the intervention.

At this stage, it is not possible to uphold the hypothesis of Awa et al. (2010), which states that combined interventions are more efficient than person-directed interventions.

14.3.6.2 Psychological Effects

About half of the 34 intervention studies (46%) measured outcomes like anxiety, mood, fear, depression, psychological stress, and exhaustion as well as negative emotions and emotional professional demands. Most of the changes observed were positive. Long-term studies following the psychological outcomes for periods longer than 6 months are very scarce.

14.3.6.3 General Health

Seven of the 34 studies (21%) surveyed various aspects of general health. In addition to general health (Peterson et al. 2008; Duijts et al. 2008), parameters like physical complaints (Zolnierczyk-Zreda 2005), trouble sleeping (Bourbonnais et al. 2006, 2011), blood pressure (Kanji et al. 2006), and exhaustion (van Rhenen et al. 2005; Sluiter et al. 2005) were also investigated. Typically, the symptoms decreased by the end of the intervention and remained stable, even more than 6 months after completion of the intervention. For example, significant positive changes in blood pressure were observed (Kanji et al. 2006). These changes were reflected by long-term improvement of general health for up to 1 year after the intervention (Peterson et al. 2008; Duijts et al. 2008).

14.3.6.4 Social Support

Support from social networks and/or colleagues was measured in 7 of the studies (21%), none of which produced consistent results over the short or long term. Surprisingly, a perceived decrease in social support by supervisors was identified in one study (Bourbonnais et al. 2006, 2011).

14.3.6.5 Work-Related Factors

One fourth (24%) of the intervention researchers looked at stressors like heavy work load, little opportunity to influence the environment, lack of skills, and effort–reward imbalance. These aspects were included in only two studies that examined person-directed interventions. In one of these studies, the investigators found an increase in participation and a quantitative decrease in work load 12 months after completion of the intervention (Peterson et al. 2008). This intervention explicitly reflected the working environment.

Although almost all of the combined interventions evaluated work-related factors, only a few achieved clearly positive results. This includes the aforementioned long-term study, which demonstrated a reduction of the effort–reward imbalance as well as an increase in the scope for decision-making up to 3 years after completion of the intervention (Bourbonnais et al. 2006, 2011). One study identified a decrease in sick leave in conjunction with an increase in job insecurity 1 year after completion of the intervention (Duijts et al. 2008).

14.4 Summary and Conclusions

In light of the social relevance of burnout and its effects on health and the working environment (e.g., absenteeism, presenteeism [coming to work although sick], diminished personal performance accomplishment and job change), the prevention

of this syndrome has received increasing attention in recent years. This is reflected in the growing number of intervention studies, especially those published within the last 5 years. On a positive note, a few medium- to long-term studies exist that have a follow-up observation period of up to 3 years.

Overall, the 34 burnout prevention studies included in this review tended to demonstrate effectiveness of the interventions independent of their study designs. Three quarters of the studies (76%) revealed positive effects of the interventions in terms of the reduction of burnout and burnout components, while 24% found no positive effects. The majority of study participants came from the health care sector. The interventions and study designs were highly heterogeneous and did not allow for direct comparison. Thus, we differentiated between person-directed interventions, organization-directed interventions, and a combination of the two approaches. It was apparent that person-directed behavioral measures targeting employees still predominate. There are no recent studies solely investigating organization-directed interventions, but studies analyzing a combination of person- and organization-directed interventions do exist.

Seventy-five percent of the 24 interventions that exclusively relate to the person resulted in a reduced overall burnout or at least in one of the subdimensions; 55% add to the reduction of risk factors for up to 6 months after the intervention. Two studies (van Rhenen et al. 2005; Peterson et al. 2008) found longer term effects, with one study offering refreshers.

Seventy percent of the ten studies that carried out combined interventions found positive effects with regard to the prevention of burnout. In some cases, positive changes regarding organizational factors were achieved. One of the studies (Bourbonnais et al. 2006, 2011) not only utilized the longest follow-up observation period of all 34 studies sampled, but indicated varied positive effects. This study showed clearly that even changes in personnel on a management level may have an effect on how outcomes develop.

Further investigation is needed to determine the extent to which the effectiveness of interventions might vary between individuals with different job-related education levels—as was suggested by one study (Redhead et al. 2011). Furthermore, the question of which specific interventional measures (e.g., cognitive behavioral training, changes in work organization, autogenic training, etc.) are essential for efficient burnout prevention cannot be determined based on the present review. It was evident that interventions involving cognitive behavioral training consistently produced positive results, whereas interventions with some standardized elements yielded heterogeneous results. Furthermore, other intervention strategies were also effective. Notably, one intervention with a participatory approach resulted in a reduction of burnout that lasted as long as 3 years after the intervention (Bourbonnais et al. 2006, 2011).

It should be noted that numerous studies were excluded during the selection process in the run-up to this review. The studies in question involved organization-directed interventions designed to reduce burnout, but the effects of the interventions were measured solely using personal risk factor-based outcome measures. This clearly demonstrates the unclear line between burnout and stress reduction in the workplace. It is questionable whether strict differentiation between prevention

of burnout and prevention of work-related stress is at all feasible or meaningful. As was mentioned in the introduction, burnout may develop as the result of professional stress. Therefore, studies that analyze interventions for reduction of work-related stress should be taken into account. If these interventions are effective and successful, they could represent the first step in the right direction toward preventing burnout. The basis of any effective intervention is to help employees and managers identify individual, organizational, and structural stressors so that they can implement appropriate measures (Walter et al. 2006). Organizational readiness is a further need for successful and effective interventions. Thus, organizational commitment and support of the intervention should be developed and retained from the beginning (Leka and Cox 2008).

Based on 25 randomized controlled trials, one systematic review of the literature on the prevention of work-related stress demonstrated that cognitive behavioral interventions can have a positive impact on general psychological symptoms, stress, and depression (Plaumann 2011). It also confirmed the finding of the present publication that cognitive behavioral interventions have positive effects on the blood pressure. However, no general conclusions can be made based on the current evidence as to which prevention measures result in improvement of overall physical health. Moreover, the reviewers analyzed three studies, none of which demonstrated a significant positive effect in terms of the endpoint "social support"

The present review highlights the need for further investigation, more complex interventions and the identification of effective interventional components. Positive effects of interventions can be boosted by offering refresher sessions. The review indicates that both health care workers and other at-risk groups benefit from burnout interventions (Salmela-Aro et al. 2004; van Rhenen et al. 2005; van Straten et al. 2008; Gorter et al. 2001). Therefore, future studies should be more differentiated and, in particular, should have longer observation periods. Not all of the studies included in the present review differentiated among the three dimensions of burnout. Future studies should make such distinctions to provide for better comparability of the effectiveness of different interventions with the same endpoints. Furthermore, it should be determined whether a target group-specific approach is needed to make interventions more effective (e.g., differentiation according to age group, sex, educational background, etc.). In order to achieve these goals, it is necessary to conduct appropriate studies of high methodological quality and to report the methods and results of these studies in a complete, clear, and transparent manner. This is the only way to effectively expand the base of scientific knowledge about burnout.

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Chapter 15
Conclusion

Sabine Bährer-Kohler

In the context of burnout, promoting the health of the individual is a significant issue. In its Mental Health Atlas 2011 (WHO 2011), the WHO stated that the resources allocated to prevent and to treat mental disorders remain insufficient: related expenditures amount to less than US$2 per person per year worldwide, and to less than 25 cents in low income countries.

We can conclude that more money should be invested in promoting mental health and/or mental well-being in the workplace (WHO and ILO 2000; Griffin and Clarke 2010) so as to promote workers' health (Pan American Health Organization 2001). Investments should be made in methods of coping with stress and combating burnout as well as in acquiring knowledge about burnout and its treatment.

Preventive strategies (Norlund et al. 2010) should be employed more frequently, especially with regard to women. Furthermore, research is needed to analyze burnout scientifically, with regard to the causes and initiating factors, classification, diagnostics, symptoms, and treatment.

Further significant aspects include the destigmatization of burnout (Hayes et al. 2004) as well as the promotion of optimally active jobs (the demands of the job are high and the employee's control over the job is high), for such jobs encourage employee motivation and engagement (Karasek 1979).

We also need sustained thinking about work, the working world, gainful employment, and forms of work (Eurofound 2008, 2010; OECD 2011; Federal Statistical Office 2010).

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