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**Burnout**

**A Critical Overview**

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Burnout is a stark metaphor that refers to the loss of mental energy. It is commonly used to describe a state or process of mental exhaustion, similar to the smothering of a fire, the extinguishing of a candle, or the draining of a battery. The Merriam-Webster dictionary describes it as 'exhaustion of physical or emotional strength or motivation usually as a result of prolonged stress or frustration' (noun) and 'to cause to fail, wear out, or become exhausted especially from overwork or overuse' (verb). Introduced in the 1970s and initially ridiculed in academia and ignored as pop psychology, burnout is currently a well-respected scholarly topic. This is evidenced by the fact that, according to PsycLit, over 13,000 scientific publications about burnout have appeared. Moreover, year after year more papers on burnout are published; for instance, between 1991 and 2010, publications rose by a factor of 7.7 (Heinemann & Heinemann, 2017). So, it does not seem that burnout is a fad as initially believed; rather, it is here to stay. As we will see below, this is unsurprising as burnout can be seen as a modern, global affliction. First introduced in the United States, it readily expanded internationally. Tellingly, burnout originally appeared as a social problem, particularly in human services such as education, health care, and social work and was then taken up by academia. This means that initially it was a practical rather than a scholarly challenge because it comes with huge costs, for the individual as well as organizations. In addition, societal costs occur because of increased health care expenditure and income compensation for those suffering from burnout. In order to ameliorate these costs, an extensive burnout industry has emerged. Today, many professionals earn a living by treating burnout victims, offering workshops on burnout, or assisting organizations on how to prevent it. In this sense, burnout has boosted professional practice, thereby closing the vicious circle of supply and demand.

The current chapter sets out to present a state-of-the-art overview about our scientific knowledge on burnout, thereby also addressing some criticisms and ongoing debates. Clearly, it is beyond the scope of the chapter to review all scientific publications, but fortunately many useful meta-analyses have appeared that summarize research findings. This chapter is structured as follows. The second section explains the history and background of burnout, which illustrates that various forerunners exist. The third section focuses on the concept and definition and how these developed. The fourth section is about the assessment of burnout, discussing not only popular self-report questionnaires but also diagnostic criteria that are used by practitioners in clinical interviews. The fifth section addresses the prevalence of burnout and also includes a critical discussion about the criteria for proper epidemiological research that are often not met in burnout research. In the sixth section, a brief overview is presented about the antecedents, consequences, and correlates of burnout, thereby focusing on the individual as well as the organizational level. The seventh section is about various psychological explanations of burnout, whereas the eighth section discusses the effectiveness of individual, team, and organizational interventions to prevent and combat burnout. The chapter closes with a final section that summarizes the main conclusions and presents an outlook on the challenges of burnout research and practice that lie ahead.

**History and Background**

Although the term burnout as we know it today was first coined in the 1970s, the use of the metaphor is much older. Almost four hundred years ago William Shakespeare wrote: 'She burnt with love, as straw with fire burneth. She burnt our love, as soon as straw out burneth'. Instead of hard work, Shakespeare associated burning love with an unkilling of burnout. It was Herbert Freudenberger (1974) who borrowed the term 'burnout' from the illicit drug scene, where it colloquially referred to the devastating effect of chronic drug abuse. He employed the metaphor to describe the gradual emotional depletion, loss of motivation, and reduced commitment among volunteers who worked with drug addicts. Not unimportantly, Freudenberger himself fell victim to burnout twice, which increased his credibility in spreading the message of burnout in the media, turning it soon into a
buzzword. Independently and almost simultaneously, Christina Maslach (1976) and her colleagues came across 'burnout' in California as well when interviewing a variety of human services workers. As a social psychological researcher, she was interested in how these workers coped with their emotional arousal using cognitive strategies such as detached concern. Through these interviews, she learned that these workers often felt emotionally exhausted, that they developed negative perceptions and feelings about their clients or patients, and that they experienced a crisis in professional competence as a result of the emotional turmoil. These practitioners referred to this syndrome as 'burnout'. So, in fact, both Freudenberger and Maslach stumbled simultaneously and more or less independently across the same colloquial term; apparently, burnout was in the air.

At a closer look, though, many cases of burnout avant la lettre have been documented, such as 'acedia' in Medieval monasteries and 'melancholy' among the nobility of the 15th and 16th century (Schaffüe, 2017). However, particularly interesting is the parallel with 'neurasthenia'—literally nervous weakness (Schaufeli, 2017). Neurasthenia emerged at the end of the 19th century and was seen as the result of modern, hectic life. It was believed that continuous overstimulation by artificial light, telephone and telegraph use, newspapers, ads, and steam trains weakens the nerves. This results in extreme fatigue, demotivation, and an inability to work, the reasoning went. Busy business people in particular used to fall victim to neurasthenia. Please note the striking similarity to the current public debate linking burnout with overstimulation due to the 24/7 economy, social media, mobile phones, and the Internet. In retrospect, one could say that the rise of neurasthenia was related to the transition from an agricultural to an industrial society, while burnout coincides with the transformation from an industrial to a postindustrial, service-oriented society. While in neurasthenia the businessman is the embodiment of the dynamic, overstimulated modern human being, in burnout, this is the emotionally overloaded human services professional. The businessman is the victim of hectic pace of life, the professional of psychosocially demanding life.

It has been argued that a particular social, cultural, and economic constellation existed in the United States that led to the 'discovery' of burnout in the 1970s (Schaufeli et al., 2009). For example, President Lyndon B. Johnson's 'War on Poverty' caused a large influx of ideologically motivated young people into human services professions. However, after struggling to reduce poverty for over a decade, they found themselves increasingly disillusioned. Their frustrated idealism was critical to the concept's momentum: the experience of burnout was not merely an inconvenience or an occupational hazard but rather a damaging attack on their professional identity. Second, starting in the late 1950s, human services rapidly professionalized and bureaucratized because of increasing government and state influence. Particularly, small-scale, traditional agencies where work was considered a calling changed into large-scale formalized organizations. The frustration and disillusionment resulting from the clash of utilitarian organizational values with providers' professional values further contributed to the spread of burnout. Third, the cultural revolution of the 1960s and 1970s weakened professionals' authority so that their traditional prestige was no longer self-evident. At the same time, entitled and empowered recipients expected much more than ever before. Together, these two trends increased the emotional demands of professional work considerably, hence contributing to burnout as well.

The three factors mentioned above are more or less specific for human services, the occupational group where burnout was observed first. However, other sociocultural developments also seem to have contributed to the emergence and proliferation of burnout. Notably, since the World War II, a process of social fragmentation unfolded whereby traditional social communities and networks such as the church, neighborhood, community, and family have gradually eroded. This resulted in increased individualization and decreased community support, thereby fostering the 'corrosion of character' (Seidman, 1998), a notion similar to burnout. In parallel, a 'narcissistic culture' (Lasch, 1979) developed, characterized by transient, unrewarding social relationships which produce self-absorbed, manipulative individuals who remain perpetually unsatisfied. As Farber (1983, p. 11) noted, the combination of these trends toward social fragmentation, individualization, and narcissism produces a 'perfect recipe for burnout'.

After its initial emergence in the United States, the concept of burnout rapidly spread across the globe. First it was introduced in Europe, followed by all other continents. Roughly speaking, the order in which the interest in burnout seems to have spread corresponds with the country's socioeconomic development. For instance, currently, the economies of and China and India are booming, and burnout attracts
attention in these countries as well. It has been suggested that globalization, privatization, and liberalization cause rapid changes in modern working life, such as learning new skills, new types of work, pressure of higher productivity and quality of work, and hectic, time-pressured jobs, which, in their turn, may produce burnout – particularly in rapidly developing countries (Kulkarni, 2006). In addition, social fragmentation, individualization, empowerment of recipients and customers, and the rise of 'me-culture' are pervasive in not only the United States and Europe but also other countries in the world.

Yet, 'burnout' does not necessarily mean the same thing in different countries. For instance, in North America it signifies a crisis in the relationship of employee with their jobs, whereas in welfare states in continental Europe, burnout is considered a psychological disorder. In other words, in North America burnout is a nonmedical, psychological term that is colloquially used, but in many European countries it is also used as a medical diagnosis that serves as an entry ticket which legitimizes the use of public social and health services. In some European countries, burnout is used as an officially recognized occupational disease (Lastovkova et al., 2018). That means that workers suffer from it are eligible for treatment and financial compensation in case of sickness absence or work.

**Concept and Definition**

Initially, in the pioneering phase of burnout research, attempts were made to characterize burnout by means of careful but unstandardized observations and case studies. This resulted in a laundry list of 132 symptoms associated with burnout that ranged from A (anxiety) to Z (loss of zeal) (Schaufeli & Enzmann, 1998). These symptoms can be grouped into affective (e.g., anxiety, depressed mood), cognitive (e.g., forgetfulness, intellectualization), physical (e.g., headaches, muscle pain), behavioral (e.g., impulsivity, procrastination), and motivational (e.g., loss of zeal and interest) symptoms. Moreover, burnout symptoms were identified not only at the individual level but also at the interpersonal (e.g., stereotyping recipients, blaming the victim) and organizational level (e.g., poor work performance, absenteeism). This laundry list approach is not very helpful because it is overinclusive; by listing all conceivable symptoms, the concept itself becomes meaningless. Yet, it gives an impression of the kind of symptoms that are involved.

In addition to identifying its symptoms in this pioneering phase, burnout was also considered as a process that unfolds across time. For instance, Edelwich and Brodsky (1980) described burnout as a process of increasing disillusionment that is, as a "...progressive loss of idealism, energy and purpose experienced by people in the helping professions as a result of conditions in their work" (p. 14). More specifically, they distinguished four progressive stages: enthusiasm, stagnation, frustration, and apathy. In the final stage, a full-blown burnout developed that includes symptoms like those listed above. Although such stage models have an intuitive appeal and therefore tend to be popular, they have not been confirmed empirically and are only based on anecdotal evidence.

The most influential definition of burnout originates from Maslach and Jackson (1981), which marks the start of a new empirical phase: "Burnout is a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that occurs frequently among individuals who do "people work" or some kind" (p. 99). In addition to emotional exhaustion and depersonalization (i.e., an impersonal attitude toward recipients), a third factor was distinguished: reduced personal accomplishment, or the tendency to judge oneself negatively in contact with recipients with whom one works professionally. The basic assumption was that working with people requires a lot of energy, effort, attention, and empathy and is therefore emotionally demanding. It was argued that high emotional demands are the root cause of burnout (see also 'Explanations').

Soon after the introduction of the Maslach Burnout Inventory (MBI) - a short, easy-to-administer self-report questionnaire - burnout research started to boom. Please note that initially - by definition - burnout could only occur among those who work with other people. So, basically, the massive use MBI fueled the self-fulfilling prophecy that burnout is limited to the human services and cannot be found in other occupational groups. This changed in the mid-1990s with the introduction of the general version of the MBI (Maslach et al., 1996). From then on, burnout could be assessed in any occupational group. In the process the original three constituting components of burnout were relabeled: emotional exhaustion turned into exhaustion, depersonalization into cynicism, and reduced personal accomplishment into lack of professional efficacy. The exhaustion component represents the stress dimension of burnout and refers to feelings of being
overextended and depleted of one's mental and physical resources. The cynicism component represents the attitudinal dimension of burnout and refers to a negative or excessively detached attitude to various aspects of the job. Finally, reduced efficacy represents the self-evaluation dimension of burnout, referring to feelings of incompetence and a lack of achievement and productivity at work.

Soon after its introduction in the early 1980s, the MBI became the gold standard to assess burnout. It was used in 93% of all scientific papers on burnout that appeared until 1996 (Schaufeli & Enzmann, 1998, p. 71). Almost two decades later, the MBI continues to dominate the field; it is still the instrument of choice in 88% of all scientific papers (Boudreau et al., 2015). This supremacy has the undesirable side effect that the concept of burnout corresponds with the way in which it is assessed. In other words, burnout is what the MBI measures, and vice versa. Needless to say, this circularity is undesirable because it impedes new and innovative research that leads to a better understanding of burnout. On a positive note, the supremacy the MBI is conducive for conducting meta-analyses.

The conceptualization of burnout from Maslach and her colleagues is not completely uncontested. A discussion raged about its dimensionality from the outset. For instance, Pines et al. (1981) described burnout as 'a state of physical, emotional and mental exhaustion caused by long-term involvement in situations that are emotionally demanding' (p. 9). In other words, burnout was reduced to mere exhaustion, and consequently their Burnout Measure yields a single score. In a similar vein, Shirom and Melamed (2006) distinguished between physical fatigue, emotional exhaustion, and cognitive weariness, and Kristensen et al. (2003) between physical and psychological exhaustion. Also, their 'burnout' measures produce a single, overall exhaustion score. All authors above argue that the correlations among the three dimensions of the MBI are not strong enough to justify calling them a syndrome. In other words, they consider the dimensions of cynicism and inefficacy as incidental and therefore unnecessary for understanding the presumed unitary nature of burnout. Exhaustion is indeed a hallmark of burnout. However, although it is a necessary criterion, it is not sufficient. If it were, then it should be recognized for what it is and plainly labeled 'exhaustion'. In short, it would not make much sense to use a novel label ('burnout') for an already existing construct ('exhaustion').

Also, Schaufeli and Taris (2005) criticized the approach of Maslach and her colleagues on conceptual grounds. In their view, the essence of fatigue is both the inability and the unwillingness to spend effort, which is reflected by the energetic and motivational components of burnout, respectively. The unwillingness to perform manifests itself by increased resistance, reduced commitment, lack of interest, disengagement, and so on—in short, mental distancing. Thus, inability (exhaustion) and unwillingness (mental distancing) constitute two sides of the same burnout coin. Moreover, they argued that in the case of normal, occasional occupational fatigue, the unwillingness to spend effort is functional because it fosters taking a break to recuperate or switching to another task and will therefore reduce fatigue. In chronic fatigue (burnout), however, the protective distancing mechanism is dysfunctional because it has habituated into relatively permanent impaired motivation. Mental distancing has become part and parcel of occupational life: instead of a solution, it is now part of the problem.

Furthermore, Schaufeli and Taris (2005) argue that instead of a constituting component of burnout, inefficacy should be considered a consequence. As such, personal accomplishment or professional efficacy can be seen as a consequence of being unable and unwilling to no longer spend effort at work. After all, because people cannot and no longer want to perform at work, they feel inefficacious. This view is supported by two longitudinal studies that showed that exhaustion leads to depersonalization and depersonalization leads, in turn, to reduced personal accomplishment (Taris et al., 2005).

Most recently, building on (1) the theorizing of Schaufeli and Taris (2005), (2) a review of current burnout instruments, and (3) in-depth interviews with professionals who deal with burned-out employees on a daily basis, burnout was reconceptualized as 'a work-related state of exhaustion that occurs among employees, which is characterized by extreme tiredness, reduced ability to regulate cognitive and emotional processes, and mental distancing' (Schaufeli, De Witte, & Desart, 2020a, p. 4). In addition to the inability (exhaustion) and unwillingness (distancing) to perform, cognitive and emotional impairment are added as distinct components that, for instance, refer to poor concentration and overreacting emotionally, respectively. As a result of exhaustion, the person's functional capacity to regulate cognitive and emotional processes is deteriorated. Seen from that perspective, cognitive and emotional impairment are specific types of exhaustion that
manifest themselves in the cognitive and emotional domain, respectively. Clearly, there is a certain parallel with the approaches of Pines et al. (1978) and Shirom and Melamed (2006), who also distinguished between various forms of exhaustion. As in the definition of Maslach and her colleagues, exhaustion and cynicism (mental distancing) are included, but reduced professional efficacy is excluded for conceptual reasons (see above). Besides, it was also not mentioned in the in-depth interviews with professionals (Schaufeli et al., 2002a).

A recurrent theme in the discussion whether or not burnout is ‘old wine in new bottles’ is its relationship with depression. A seminal review and meta-analyses including 92 studies on the burnout-depression overlap (Bianchi et al., 2015) concluded that: (1) most burnout-out employees also exhibit depressive symptoms; (2) burnout and depression scores are moderately to highly correlated, particularly as far as the exhaustion component is concerned; (3) results regarding the causal link between burnout and depression are heterogeneous; (4) somatic and biological levels of analysis seem to suggest some degree of distinctiveness; and (5) burnout and depression associate differently with both job-specific (burnout) and generic (depression) factors. Hence, it seems that the distinction between burnout and depression is—at least to some extent—supported by empirical research. This is also confirmed by a more recent meta-analysis that revealed no conclusive overlap between burnout and depression, ‘...indicating that they are different and robust constructs’ (Koutsimanis et al., 2015, p. 1).

Assessment

Basically, burnout can be assessed in two ways: by using self-report questionnaires and by means of a structured, clinical interview. Most psychological researchers use the former, considering burnout a continuous variable, whereas occupational physicians and occupational health psychologists prefer the latter, considering it a dichotomous variable. Psychological research focusing on working and relatively healthy employees with only mild burnout symptoms is abundant. In contrast, research is relatively scarce among those with a burnout disorder who suffer from severe symptoms and are not able to work. Below, the assessment of burnout with self-reports is discussed first, followed by diagnostic guidelines that are employed to assess burnout as a mental disorder.

Self-Reports

As noted previously, the MBI is the gold standard to assess burnout and was developed during the late 1970s, based on a program of field research within the human services (Maslach & Jackson, 1981). The original version is known as the MBI-Human Services Survey (MBI-HSS), and several years later, a specific version was developed for use in educational settings (MBI-Educators Survey, or MBI-ES). In the mid-1990s a third, general version of the MBI was developed (MBI-General Survey, or MBI-DS) that can be used in all occupations and work settings (Maslach et al., 1996). Finally, a student version of the MBI is now available (Schaufeli et al., 2002).

Instead of a single, common burnout score, all versions of the MBI produce three subscale scores: (1) exhaustion—feelings of being emotionally overextended and exhausted by one’s work (e.g., ‘I feel burned out from my work’); (2) depersonalization—an unfeeling and impersonal response toward recipients of one’s care or service (e.g., ‘I’ve become more callous toward people since I took this job’); (3) cynicism—a negative or distant attitude toward the job (e.g., ‘I have become less enthusiastic about my work’); and (4) professional efficacy—feelings of competence and successful achievement in one’s work (e.g., ‘At my work, I feel confident that I am effective at getting things done’). High scores on exhaustion and depersonalization/cynicism, and low scores on professional efficacy, are indicative for burnout.

Generally speaking, the psychometric quality of the MBI is good. A meta-analysis across 221 studies shows that the internal consistency (coefficient a) of the three MBI subscales generally falls within the 0.70–0.80 range (Wheeler et al., 2011). More specifically, in 98% of the studies, values of a for the exhaustion scale exceed .60. However, it is also concluded that mean a-values for depersonalization and professional efficacy ‘were well below recommended levels for high-stakes decisions, such as the diagnosis of burnout syndrome’ (Wheeler et al., 2011, p. 232). Such decisions would require a values of at least .90. Another meta-analysis by the same authors examined the dimensionality of the MBI, using 35 exploratory and 28 confirmatory factor-analytic studies (Worley et al., 2008). Although the three-factor model of the MBI is generally supported, a two-factor solution is also found occasionally with exhaustion and depersonalization/cynicism collapsing into one factor (sometimes called the core of burnout) and
professional efficacy as the second factor. This is not surprising because the mean correlation between exhaustion and depersonalization/cynicism \((r = .57)\) is much higher than that between exhaustion and professional efficacy \((r = -.30)\) and depersonalization/cynicism and professional efficacy \((r = -.25)\).

As far as discriminant validity is concerned, a meta-analysis including over 60 studies (Koutsanis et al., 2019) shows that burnout as assessed with the MBI, is moderately related to anxiety \((r = .45)\) as well as depression \((r = .47)\). Consistently, relationships with the exhaustion scale are higher than with the other two burnout scales. According to the authors, these effect sizes are not so strong that it would suggest they are the same constructs. Hence, they conclude that ‘burnout and anxiety appear to be different constructs that share some common characteristics and they probably develop in tandem, rather they fall into the same category with different names being used to describe them’ (Koutsanis et al., 2019, p. 14). In a similar vein, MBI-burnout can also be discriminated from work addiction, a compulsive tendency to work excessively hard (Schaufeli et al., 2003) as well as boredom, a low degree of activation due to a lack of stimulation at work (Reijseger et al., 2013).

Despite these positive psychometric features, the MBI is also criticized on conceptual grounds (Schaufeli et al., 2020). As mentioned above, it is doubted that reduced professional efficacy is a constituting element of burnout because it may be better interpreted as a consequence of burnout (Schaufeli & Taris, 2003). Furthermore, it is shown that reversing the positively worded professional efficacy items in order to tap a lack of professional efficacy – as is the standard procedure for the MBI – creates an artifact. Results of confirmatory factor analyses show that the professional efficacy scale of the MBI loads on a positive work engagement factor instead of a negative burnout factor, whereas the reverse is true for a scale with negatively worded inefficacy items (Schaufeli & Salanova, 2007). Hence, MBI-efficacy loads on the ‘wrong’ factor – work engagement – considered to be the positive antipode of burnout. So, all in all, it seems that professional efficacy competence is the odd one out, meshing with the idea of exhaustion and depersonalization/cynicism both constituting the core of burnout.

A multidimensional questionnaire that does not include professional efficacy is the Oldenburg Burnout Inventory (OLBI – Demerouti et al., 2003). The OLBI comprises two dimensions – exhaustion and disengagement – that are similar but somewhat broader defined as compared to the MBI. That is, exhaustion includes not only affective but also physical and cognitive aspects, whereas the disengagement items refer to the lack of interest and meaning of the job. A distinctive feature of the OLBI is that both subscales also include reversed, positively formulated items. Using the Multi-Trait-Multi-Method (MTMM) approach in a German sample, convergent and discriminant validity of the OLBI vis-à-vis the MBI-GS is demonstrated. Both instruments correlate .74, thus sharing 55% of their variance (Demerouti et al., 2003). Subsequent research using two US samples corroborates these results and demonstrates acceptable reliability (test-retest reliability and internal consistency) as well as factorial validity (Halbesleben & Demerouti, 2005).

Recently, the Burnout Assessment Tool (BAT – Schaufeli et al., 2020a, 2020b) was introduced, specifically with the aim of supporting practitioners with diagnosing burnout. In addition to the four core dimensions of burnout (exhaustion, mental distancing, emotional impairment, and cognitive impairment), a scale with secondary distress symptoms (e.g., irritability, sleeping problems, and tension headaches) is also included. Using the MTMM approach, convergent and discriminant validity of the BAT vis-à-vis the MBI-GS and the OLBI is demonstrated (Schaufeli et al., 2020a). Moreover, it appears that a second-order factor model including the four core dimensions of the BAT is invariant across national representative samples from seven different countries (De Beer et al., 2020). Finally, using Rasch analysis, it is shown that the core dimensions constitute a unidimensional scale so that a single composite BAT-score can be computed, which is indicative for a person’s level of burnout; the higher the score, the higher the level of burnout (Hadjibrahimovic et al., 2020).

Taken together, it seems that the OLBI and the BAT are viable alternatives for the MBI. The former has the advantage that it is more concise conceptually because it does not include the disputed professional efficacy dimension; whereas the latter produces a single, overall score that can be used to assess burnout comprehensively as a syndrome incorporating four core symptoms.

In addition to these three multidimensional burnout questionnaires, one-dimensional questionnaires also exist that reduce burnout to mere exhaustion. The most used and best validated questionnaires are the Burnout Measure (BM; Pines et al., 1981), the Shirom Melamed
Burnout Measure (SMBM; Shirom & Melamed, 2006) and the Copenhagen Burnout Inventory (CBI; Kristensen et al., 2003).

**Diagnostic Guidelines**

Burnout is not included in the DSM-V, but it is mentioned in the latest version of the International Classification of Diseases (ICD-11) of the WHO (2019). Instead of a disease that should be diagnosed, burnout is considered an 'occupational phenomenon'. As a consequence, the ICD-11 does not include specific diagnostic criteria for burnout.

In countries like Sweden (Hasselberg et al., 2014) and the Netherlands (Van der Klink & Van Dijk, 2003), officially sanctioned guidelines exist for the assessment of burnout that are used in clinical interviews by physicians and psychologists. Both countries’ diagnostic criteria for burnout (in Sweden called ‘exhaustion disorder’) largely overlap and include:

- Physical and mental exhaustion (even after minimal effort), which is considered the hallmark of burnout;
- Loss of control or ineffectiveness of the usual coping strategies;
- Loss of work and/or social roles by at least 50%;
- Core symptoms (daily);
  - Cognitive (lack of concentration, memory deficits, inefficient thinking);
  - Emotional (irritability, emotional instability);
- Supplemented by (daily) secondary distress symptoms (e.g., palpitations, muscle aches, dizziness, nervousness, worrying, inability to relax, sleep problems, gloomy mood);
- Symptoms should be present for at least six months.

Exclusion criteria are:

- Psychiatric disorders such as mood disorder, anxiety disorder, or PTSD;
- The symptoms should not be due to substance abuse, medication, or a somatic disease (e.g., diabetes, hyperthyroidism, arthritis, chronic fatigue syndrome, or fibromyalgia).

Based on these inclusion and exclusion criteria, burnout is diagnosed as an occupational disease by medical professionals such as occupational physicians and general practitioners. These criteria were also used for selecting employees that suffer from severe burnout who were used to establish clinically validated cut-off scores for the BAI (Schaufeli et al., 2020b). Based on the criteria above, a self-rating scale was developed in Sweden (Besèr et al., 2003). Hence, this self-rated questionnaire can be used by professionals to validate the outcome of their clinical interview.

**Prevalence**

For proper epidemiological research to estimate the prevalence of burnout, two requirements need to be met: (1) the use of a valid and reliable questionnaire with appropriate cut-off values; and (2) a representative sample. Although the MBI can be considered a valid and reliable burnout measure, cut-off values to discriminate burnout cases from noncases are lacking. The current MBI test-manual even explicitly warns against using cut-off values by including a note of caution that reads: ‘It is important to understand that there is no definitive score that “proves” a person is “burned out”’ (Maslach, Jackson & Leiter, 2016, p. 23). In other words, the MBI should not be used to estimate the prevalence of burnout. Nevertheless, previous versions of the test-manual (Maslach & Jackson, 1986; Maslach et al., 1996) specified cut-off values that have been used extensively for that very purpose. Those cut-off values corresponded with the upper third of the score distribution of particular reference groups from previous test-manuals such as teachers and medical and social services professionals. Unfortunately, these were nonrepresentative samples and data were gathered in the late 1970s, which, in fact, makes the MBI cut-offs useless and outdated.

Given the problematic nature of the MBI cut-offs, it is not surprising that estimates of the prevalence of burnout are uninformative. For instance, a systematic review that includes 131 studies among physicians concludes that the prevalence of burnout ranges from 0% to 87% (Rosenstein et al., 2018). Hence, the authors conclude: ‘These findings preclude definitive conclusions about the prevalence of burnout’ (p. 1145). In a similar vein, Adriaenssens et al. (2013) found that the prevalence of burnout among emergency nurses ranges across 17 studies from 9% to 76%. Another systematic review including 113 studies reports an overall pooled prevalence of 11% among nurses from 49 different countries (Woo et al., 2020). However, significant
heterogeneity exists in the estimated burnout rates so that the pooled prevalence is not very informative, as the authors note.

Proper epidemiological research was carried out in Sweden's two most northern counties using a large random sample (Norlund et al., 2010). To assess burnout, the SMBM was employed with validated cut-offs that were based on a reference group that meets the Swedish diagnostic criteria for exhaustion disorder (see above). This study revealed that 13% had a high level of burnout - or, more precisely, showed elevated exhaustion levels. Moreover, exhaustion is more prevalent among women (16%) compared to men (10%), is observed most frequently in the age group between 35 and 44 years, and decreases with age in both sexes. The latter might point to the so-called healthy worker effect: a selection bias whereby the least healthy workers have left their jobs, thus leaving their healthier colleagues.

The results of this Swedish study are remarkably similar to that of the Dutch Annual Working Conditions Survey, which is carried out among a large, representative sample of the working population. This survey uses the exhaustion scale of the MBI with cut-offs that are based on a reference group that meets the Dutch diagnostic criteria for burnout (see above). It was estimated in 2019 that 17% experience severe exhaustion, 18% among women and 16% among men (Houtman, 2020). Exhaustion is most prevalent among those aged between 25 and 34 years and rates for both sexes decrease with age. Moreover, exhaustion is most prevalent in teaching (23%), followed by health care (19%) and industry (18%). Finally, the prevalence of severe work-related exhaustion appears to be more or less stable across time, initially fluctuating around 11% from 1997 till 2012, after which it increased gradually to 17% in 2019.

The only study so far that compares national representative samples from various countries (De Beer et al., 2020) showed that, using the BAT, burnout levels in Japan are significantly higher compared to six European countries (Austria, Belgium, Finland, Germany, Ireland, the Netherlands).

In conclusion, the MBI is not suitable for epidemiological research, and when it is nonetheless used, the prevalence of burnout varies too much across studies to draw any meaningful conclusions. Employing questionnaires that tap exhaustion only, it was estimated in Sweden and the Netherlands that between 13% and 17% of the working population suffer from this hallmark of burnout. In both countries, exhaustion was more prevalent in women and younger age groups and decreased with age.

Antecedents, Consequences, and Correlates

The main antecedents, consequences, and correlates of burnout, which emerged mostly from systematic reviews and meta-analyses, are summarized below. The Job Demands-Resources (J-R) model is used to structure this section (Bakker & Demerouti, 2016). Before discussing the main empirical findings, two notes should be made.

First, the vast majority of empirical burnout studies is cross-sectional in nature, which precludes drawing any conclusions about its causes and effects. Using the JDR model, Lesner et al. (2019) analyzed the results of 74 longitudinal samples and found that job characteristics (i.e., job demands and job resources) are reciprocally related to burnout. This means, for instance, that work overload leads to burnout, but also the other way around, that employees who feel burned out at a certain point in time are likely to perceive a higher future workload. Hence, perceived work overload may act as an antecedent as well as a consequence of burnout.

Second, various antecedents may interact with each other. Negative effects of job demands, such as work overload or role problems, may be compensated or buffered by job resources, such as job control and social support (Xanthopoulou et al., 2007). These may mitigate these effects and thus protect employees from burning out. Recently, a meta-analysis of 48 longitudinal studies found that the 'stressor-effect' (job demands → burnout) is smaller than the reverse 'strain-effect' (burnout → job demands) and that the latter is moderated (i.e., reduced) by job control and social support (Guthrie et al., 2020). Supplementary analyses suggest that the reciprocal relations are mainly driven by exhaustion and that exhaustion and depersonalization/cynicism are reciprocally related across time.

Hence, it can be concluded that the longitudinal relationships between job characteristics and burnout are more complex and go beyond the simple idea that job stressors and lack of job resources 'cause' burnout. Hence, the phrase potential antecedents and consequences is used below. First, potential antecedents and consequences of burnout are discussed, followed by its correlates, such as person and
sociographic factors. Next, the potential consequences and correlates of burnout will be examined, respectively.

**Potential Antecedents**

Table 8.1 summarizes the most important potential causes of burnout and is based on various qualitative reviews (Halbesleben & Buckley, 2004; Schaufeli & Taris, 2014; Shirom, 2002) as well as three meta-analyses (Alarcon, 2011; Aronson et al., 2017; Crawford et al., 2010).

The most consistent finding is that *quantitative* job demands, such as work overload (i.e., too much work to do), time pressure, long work hours, and frequent contact with customers or clients (caseload) are positively related to burnout. The same applies for *qualitative* job demands, such as conflicting work roles and inadequate information to fulfill one's work role (role problems), being involved in emotionally charged situations (emotional demands), and interference between work and nonwork roles (work–nonwork conflict). The reason is that such job demands spark an energy depletion process whereby an employee's sustained effort to meet these demands may drain his or her energy backup. An illustrative study on the impact of objectively assessed quantitative job demands was carried out in over 200 Pennsylvania hospitals (Aiken et al., 2020). It shows that an unfavorable patient-to-nurse ratio, which causes nurses to spend more effort on their job, is positively related to burnout; an increase of one patient per nurse to a hospital's staffing level increases nurse burnout by 23% and patient mortality by 7%, after controlling for patient and hospital characteristics. An example of a specific emotional demand is emotional dissonance, which occurs when expressed emotions are in conformity with organizational norms but clash with one's true feelings. A meta-analysis using 52 studies found a medium-sized, positive relationship between emotional dissonance and emotional exhaustion (Kenworthy et al., 2014). As far as work–nonwork conflict is concerned, a meta-analysis including 91 studies revealed that work to nonwork conflict is more strongly related to emotional exhaustion and cynicism as compared to nonwork to work conflict, with ps of .61 and .41 vs. .34 and .34, respectively (Reichl et al., 2014).

Moreover, burnout is also related to lacking job resources. More specifically, burnout is likely to occur when interpersonal resources (e.g., social support from colleagues and supervisors) or resources that refer to the content of the job (e.g., performance feedback, participation in decision making, and job control) are lacking, both of which are instrumental in achieving one's work goals. For instance, Neveux (2007) found among French correctional officers that depletion of resources, such as coworker support and participation in decision making, leads to burnout and, in turn, to depression and sickness absence. Leadership plays a special role because leaders are supposed to balance the job demands and job resources of their followers in order to prevent them from burning out. The majority of studies focus on transformational leadership. According to a review by Arnold (2017), most studies find a negative relationship with burnout. Yet, study results are equivocal because different results are obtained for different aspects of transformational leadership. For instance, burnout is reduced when supervisors are perceived to be charismatic and individually considerate (negative relationship), but it is higher when supervisors are perceived as intellectually stimulating (positive relationship).

Generally speaking, associations with job demands are somewhat stronger than with job resources. Typically, associations with the former vary between .35 and .45, and with the latter between .25 and .30. Moreover, associations with the exhaustion component of burnout are more consistent and usually also stronger, as compared to both other burnout dimensions.

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<th>Table 8.1 Main potential antecedents of burnout</th>
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Potential Consequences

Table 8.2 summarizes the most important possible consequences of burnout and is based on the same reviews and meta-analyses as Table 8.1, supplemented by more specific overviews and studies mentioned below.

Potentially, burnout has negative consequences for the individual employee as well as for the organization they are working for. Individual consequences pertain particularly to the employee's physical and mental health. A systematic review of 61 prospective studies found that the most frequently investigated physical outcomes of burnout are cardiovascular diseases (i.e., coronary heart disease (CHD) and hospitalization for cardiovascular diseases) and risk factors for these diseases, such as obesity, hyperlipidemia, type 2 diabetes, large waist circumference, high body mass index (BMI), metabolic syndrome, hypertension, high triglycerides, low HDL cholesterol, and high LDL cholesterol (Salvagioni et al., 2017). In addition, this review also found that musculoskeletal disorders, pain (overall pain, neck–shoulder pain, back pain, and pain-related disability), and psychosomatic complaints (headaches, insomnia, gastrointestinal and respiratory problems) are prospectively related to burnout. As far as mental health is concerned, burnout may lead to anxiety and depression (Koatsimian et al., 2019). For instance, using a three-wave longitudinal design spanning seven years, it was shown that burnout leads to depression, rather than the other way around (Hakanen & Schaufeli, 2012). Moreover, it appeared that work engagement acted as a protective factor for burnout (Hakanen et al., 2018). Finally, at the behavioral level, two largescale Finnish studies showed that burnout is a predictor of hospital admissions due to mental disorders over a ten-year period (Toppinen-Tanner et al., 2009), as well as a significant predictor of mortality in the next decade among those aged 45–65 years (Ahola et al., 2010).

Although burnout has been related to poor physical and mental health, as well as behavioral outcomes, the underlying physiological mechanisms are still largely uncovered. This is illustrated by a meta-analysis of 31 studies that includes 36 different biomarkers and concludes that "no potential biomarkers for burnout were found" (Dahoff et al., 2011, p. 505). This conclusion was confirmed by a more recent narrative review by Jonsdotir and Dahlman (2019), who wrote: "... albeit the large body of studies, it cannot be concluded that clear effects are seen on HPA-axis function in people with burnout" (p. 147). The hypothalamic-pituitary-adrenal (HPA) axis is a major neuroendocrine system that controls reactions to stress and regulates many body processes, including mood and emotions and energy expenditure. So, obviously, burnout does not lead to poor health via physiological changes that are indicated by biological markers such as particular hormones like cortisol, or immune parameters such as cytokines.

Negative consequences of burnout for the organization (see Table 8.2) typically reflect employee withdrawal, either mentally (e.g., poor organizational commitment; Alarcon, 2011) or physically (e.g., turnover, and frequency and duration of sickness absence; Swider & Zimmerman, 2010). In addition, a large Finnish population study (Ahola et al., 2009) that spanned eight years found that workers with severe burnout have a greater likelihood of receiving a new disability pension (15%) compared to those with mild (8%) or no burnout (5%). Furthermore, Nahrgang et al. (2011) tested a meta-analytic model that was based on over 200 studies and showed that burnout played a mediating role between safety demands (e.g., risks and hazards) and lacking safety resources (e.g., poor safety climate), on the one hand, and safety outcomes like accidents, adverse events, and unsafe behaviors, on the other. More specifically, a meta-analysis of 82 studies carried out among nurses and physicians showed that both quality of care and patient safety decrease as burnout complaints of these health care providers increase (Salyers et al., 2017). Finally, a meta-analysis of

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20 studies showed that burnout is negatively related to task performance as well as contextual work performance (Swider & Zimmerman, 2010). Generally speaking, this association is rather weak with $r$s between .20 and .35 depending on the burnout dimension, and appears to be somewhat stronger for other-rated performance compared to self-rated performance.

**Correlates**

Two kinds of correlates will be discussed below: sociobiographical characteristics (gender and age) and personality factors. These factors may have a direct impact on burnout as well as moderate the negative effect of job demands or a lack of resources on burnout. In the former case, they can be interpreted as personal vulnerability factors, whereas in the latter case they act as stress buffers. Finally, personality factors may also influence the way the job is perceived. For instance, optimists may perceive their jobs as less demanding than pessimists and may therefore be less likely to fall victim to burnout.

A meta-analysis including 183 studies shows that women feel slightly more exhausted, while men exhibit somewhat more mental distance (Furumova, 2010). These differences are very small, though, with effect sizes lower than .20. Moderator analyses revealed that gender differences in the USA are larger as compared to Europe, but do not vary significantly in male- vs. female-typed occupations. Gender may also act as a moderator: work to nonwork conflict seems to have a stronger impact on women than on men (Reichl et al., 2014).

Another meta-analysis covering 35 studies supported a negative correlation between age and burnout, meaning that older employees experience less burnout than younger employees (Brewer & Shapard, 2004). Also, a negative correlation was found between work experience in a particular job and burnout; i.e., more seasoned employees experience less burnout. Associations with age and work experience are rather weak ($r$s < .20) and might reflect a healthy worker effect. Please note that the results of the Dutch and Swedish epidemiological studies discussed above agree with these meta-analyses.

The most important personality factors that are associated with burnout are shown in Table 8.3. Research has unequivocally shown that burnout is associated with all Big Five personality traits, except openness. A meta-analysis that includes 66 studies shows that emotional stability and extroversion are moderately and negatively associated with burnout, followed by conscientiousness and agreeableness, which are somewhat less strongly and also negatively related with burnout (Swider & Zimmerman, 2010). This means that especially persons who are less emotionally stable, extroverted, conscientious, and agreeable are more likely to burn out. Overall, these four personality traits explain between 21% and 32% of the variance, depending on the burnout dimension. Finally, a path model was successfully tested in which burnout mediated the relationship between the Big Five personality traits and three outcomes (i.e., absenteeism, turnover, and job performance). Neuroticism and extroversion in particular were indirectly related to these outcomes via burnout.

It is not surprising that another meta-analysis that included 144 samples confirmed this picture because it is largely based on the same Big Five studies (Alarcon, 2009). However, this meta-analysis provides more detailed information about the unique contribution of each of the Big Five personality traits in explaining the variance of each burnout dimension separately. It appears that emotional stability has especially strong unique, negative relationships with emotional exhaustion and depersonalization, whereas extroversion has an especially strong unique negative relationship with lack of personal accomplishment.

The meta-analysis of Alarcon et al. (2009) also includes another set of personality traits known as core self-evaluation (CSE), which
represents an individual’s fundamental beliefs about competence and self-worth. This higher-order construct consists of four traits: self-esteem, self-efficacy, internal locus of control, and emotional stability. All components of CSE are negatively associated with burnout. Taken together, they explain 26%, 17%, and 30% of the variance in exhaustion, cynicism/depersonalization, and professional efficacy, respectively. Emotional stability explains most unique variance in exhaustion and cynicism/depersonalization, whereas self-efficacy explains most unique variance in professional efficacy.

According to the meta-analysis of Alarcon et al. (2009), four more specific personality characteristics are related to burnout. First, positive affectivity and negative affectivity, whereby the former refers to a general tendency to experience positive emotional states (i.e., happiness, excitement, and energy), whereas the latter is the tendency to experience negative emotional states (i.e., sadness, anxiety, and hostility). Not surprisingly, positive affectivity is moderately positively related to burnout, and negative affectivity moderately negatively.

Second, hardiness reflects the extent to which a person is able to endure stressors without experiencing negative effects and includes three dimensions: control, challenge, and commitment. It appears that individuals who (1) tend to believe that they can control the events that happen to them; (2) perceive stressors as challenges rather than as threats; and (3) are committed to several life domains (e.g., family, friends, religion) are less likely to burn out. Third, dispositional optimism - the general tendency to believe that good things will occur in the future and that bad things will not occur - is negatively related to burnout. Fourth, burnout is negatively associated with a proactive personality, which takes action, shows initiative, and perseveres. This meshes with the results of a meta-analysis of 36 studies that showed that active, problem-focused coping correlated negatively with all three dimensions of burnout (Shin et al., 2014).

Finally, according to a meta-analysis of 43 studies, burnout also appears to be related to perfectionism, more particularly, perfectionistic concerns but not perfectionistic strivings are positively related to burnout (Hill & Curtan, 2016). The former refers to concerns over making mistakes, fear of negative social evaluation, and feelings of discrepancy between one’s expectations and performance, whereas the latter refers to striving for perfection and the setting of very high personal performance standards.

Taken together, a more or less consistent pattern emerges of personality characteristics that can be considered as risk factors for burnout. It may not come as a surprise that emotional stability and (positive and negative) affectivity show the most consistent and strongest relationships with burnout, notably exhaustion. The reason is that neuroticism, affectivity, and burnout overlap; albeit burnout symptoms refer to current experiences, while emotional stability and affectivity refer to how someone generally feels.

Explanations

To date, a specific overall psychological theory that explains burnout does not exist. Instead, the picture is rather scattered when it comes to explaining the underlying psychological processes that play a role in burnout. Early explanations focused on the individual, interpersonal, or organization factors as the main causal agents (for an overview, see Schaufeli & Enzmann, 1998, pp. 160-142). But most of these theoretical explanations are speculative and lack sufficient empirical support. This section discusses three theoretical explanations that can draw on empirical evidence and in which emotional overload, lack of reciprocity, and emotional contagion play a key role, respectively. Two descriptive frameworks are considered that are helpful for integrating the results from burnout research discussed in the previous section.

Descriptive Models

Crawford et al. (2010) used the JD-R model for testing a meta-analytic model in which they differentiated between challenging and hindrance stressors. The former tend to be appraised as stressful demands that have the potential to promote mastery, personal growth, or future gain (e.g., high workload and time pressure). The latter tend to be appraised as stressful demands that have the potential to thwart personal growth, learning, and goal attainment (e.g., role conflict and work-nonwork conflict). Their results showed that, in addition to lack of resources, hindrance demands were more strongly related to burnout than challenge demands. In other words, it matters how demands are appraised: when this occurs in terms of situational constraints, this has a stronger negative impact on burnout than when this is done in terms of opportunities.
Another descriptive framework is the Six Areas of Working Life approach (Leiter & Maslach, 1999). Based on the person–environment fit principle, this framework describes the interplay of stressors and resources in relation to burnout. As a result of maladjustment or adaption of the employee's needs and expectations, a stressful person–job incongruity develops in six critical areas of working life which may threaten well-being. These six areas are: workload, job control, community, reward, fairness, and values. When a mismatch in each of these areas occurs, burnout is likely to result: this is the case when the workload is too high, job control is lacking, the sense of community and fairness among employees is eroded, intrinsic and extrinsic rewards are poor, and personal values of employees do not correspond with those of the organization. A study among Spanish hospitality workers shows that together these six areas explained 23% of the variance in exhaustion, 8% in cynicism, and 18% in professional efficacy (Gascón et al., 2019). By far the most important area for exhaustion is workload, whereas community explains most variance in cynicism, community, and values in professional efficacy. Apparently, mismatches in different areas are associated with different aspects of burnout. Moreover, a German study among nurses suggests that these six mismatches constitute a more complex pattern (Bron et al., 2013). This study successfully tested a model in which reward, community, and fairness mediated the relationship between control and values, and values, in turn, was associated with burnout. Hence, control and values play a crucial role as antecedent and mediator, respectively. In addition, it was found that workload mediated the relationship between control and exhaustion, thus emphasizing the key role of exhaustion in the development of burnout.

Emotional Overload

According to Maslach (1993), interpersonal demands resulting from the helping relationship are considered to be the root cause of burnout. Please note that initially burnout was restricted to human services professions in which this helping relationship is pivotal. Maslach (1993) argued that contacts with service recipients are, by their very nature, emotionally charged because human services professionals deal with troubled people who are in need. In addition, human service workers often experience emotional dissonance that may lead to emotional exhaustion (Kenworthy et al., 2014). In order to deal with emotional demands at work and avoid emotional exhaustion, human service workers detach themselves from their recipients. When they are treated in a more remote, objective way, it is easier to do one's job without psychological discomfort. A functional way is to develop an attitude of detached concern, the ideal blending of compassion with emotional distance. However, detached concern may turn into dysfunctional depersonalization: that is, a persistent callous, indifferent, and cynical attitude. As a result of depersonalization, performance and service quality are likely to deteriorate because the major vehicle for occupational success—compassion with and concern for others—has been destroyed in an attempt to protect one's psychological integrity. So, due to depersonalization, successes at work diminish so that the professional's sense of personal accomplishment erodes and feelings of insufficiency and self-doubt develop.

Based on the theoretical approach of Maslach, Leiter (1993) conducted a series of studies among health care workers in which he distinguished quantitative job demands (e.g., work overload, hassles), qualitative job demands (e.g., interpersonal conflict), and lack of resources (e.g., lack of social support, poor patient cooperation, lack of autonomy, and poor participation in decision making). Both types of demands were expected to be related with emotional exhaustion, whereas the lack of resources was expected to be related with depersonalization and lack of personal accomplishment. Indeed, these hypothesized relationships were observed in Leiter's (1993) mixed sequential and parallel development model of burnout. As expected, this model found that emotional exhaustion leads to depersonalization, but contrary to expectations, reduced personal accomplishment seems to develop rather independently from both other burnout dimensions. Based on meta-analytic data, Swider and Zimmerman (2010) confirmed the sequence of the three burnout dimensions as hypothesized by Maslach, at least as far as the prediction of job performance is concerned. When other outcomes such as absenteeism and turnover were used, a different sequence emerged (reduced accomplishment → depersonalization → exhaustion and exhaustion → reduced accomplishment → depersonalization, respectively). It should be noted that Maslach's reasoning primarily pertained to job performance and not to absenteeism or turnover, which can be seen as withdrawal behaviors.
Although Maslach's (1993) explanation, in which emotional overload plays a key role as a root cause of burnout, originally focused on human professionals, the same logic may be applied for explaining burnout in other job contexts (Maslach et al., 2001). Accordingly, exhaustion develops primarily in reaction to job demands, including interpersonal demands, and to a somewhat lesser extend in reaction to lack of resources. This concurs with the results of various meta-analyses that have been discussed in the previous section. As a means of self-protection, mental distancing develops not only from the people one is working with but also from the job as a whole. In turn, this mental distancing undermines the employee's capacity to perform, leading to a feeling of reduced professional efficacy.

Lack of Reciprocity

Although emotionally demanding interpersonal relationships may be seen as the root cause of burnout, it is not clear why these relationships are so stressful. As Buunk and Schaufeli (1993) have pointed out, lack of reciprocity – an unbalanced relationship between service provider and recipient – drains the professionals' emotional resources and eventually leads to emotional exhaustion. By definition, relationships with service recipients are complementary; service workers are assumed to 'give', whereas patients, clients, students, and customers – in short, recipients – 'receive' care, assistance, education, counseling, advise, support, and so on. Yet, service workers expect 'rewards' in return for their efforts, like gratitude, recognition, appreciation, respect, improvement, or perhaps just a smile. But often such expectations are not fulfilled so that, over time, a lack of reciprocity develops, professionals feel that they continuously put much more in relationships with their recipients than they receive back in return. As Buunk and Schaufeli (1993) argued, this is typically dealt with by decreasing one's investments in relationships with others; that is, by responding to recipients in a callous, depersonalized way instead of expressing genuine empathic concern. From a social exchange perspective, depersonalization – or cynicism, for that matter – may be regarded as a way of restoring reciprocity by withdrawing psychologically. However, as was outlined above, this dysfunctional way of coping fosters a sense of diminished professional efficacy.

Indeed, positive relationships were found between lack of reciprocity at the interpersonal level and all three dimensions of burnout among various service professionals, such as nurses, physicians, teachers, police officers, and correctional officers (for an overview, see Schaufeli, 2006). Moreover, there is some longitudinal evidence for a curvilinear relationship between lack of reciprocity and emotional exhaustion: feeling more deprived as well as feeling more advantaged may result in higher levels of exhaustion (Van Dierendonck et al., 2001). Another longitudinal study showed that depersonalizing patients at Time 1 increases the likelihood of feeling harassed by them five years later, which, in turn, fosters a lack of reciprocity, eventually leading to burnout (Bakker et al., 2000). Thus, a lack of reciprocity in interpersonal relationships at work seems to play an important role in the development of burnout.

Similar social exchange processes also govern the relationships of employees with their teams and the organization. Employees have a so-called psychological contract with the organization they work for which entails expectations about the nature of the exchange with that organization (Rousseau, 2011). Expectations concern concrete issues such as an acceptable workload and career advancement, as well as less tangible matters such as esteem and dignity at work and support from supervisors and colleagues. In other words, the psychological contract reflects the employees' subjective notion of reciprocity, whereby the expected gains or outcomes from the team and the organization are expected to be proportional to the investments or inputs. When the psychological contract is violated because experience does not match expectations, reciprocity is corroded. A series of studies among nurses, medical specialists, psychotherapists, teachers, and bus drivers showed that in addition to burnout, violation of the psychological contract may also lead to withdrawal from the team (e.g., reduced involvement, social isolation) and the organization (e.g., reduced organizational commitment and sickness absence) (for an overview, see Schaufeli, 2006).

So, taken together, it seems that a disturbed balance of give and take at the interpersonal, team, and organizational level plays a major role in the development of burnout. This may lead not only to exhaustion and mental distancing (i.e., burnout) but also to withdrawal from the team and the organization.
Emotional Contagion

It has been suggested that colleagues may act as role models whose symptoms are imitated through a process of emotional contagion (Hatfield et al., 1993). That is, individuals under stress may perceive symptoms of burnout in their colleagues and automatically take on these symptoms. In addition to this unconscious emotional contagion, an alternative pathway may exist through which people may catch the emotions of others (Bakker et al., 2006). Namely, contagion may also occur through a conscious cognitive process by ‘tuning in’ to the emotions of others. This is the case when an individual shows empathetic concern and tries to imagine how they would feel in the position of another and, as a consequence, experiences the same feelings.

The contagious nature of burnout was demonstrated in nearly 80 European Intensive Care Units (Bakker et al., 2005). It was observed that burnout tends to cluster in particular units, whereas it is virtually absent in others—also after controlling for job autonomy and subjective and objectively assessed workload. Moreover, as expected, nurses from units in which burnout clusters observed more burnout complaints among their colleagues than their fellow nurses do in the other units. In a similar vein, it was found among professionals who work with homeless people that emotional contagion is directly as well as indirectly—through communicative responsiveness—related to burnout (Miller et al., 1995). Another study (Bakker et al., 2001) shows that general practitioners who perceive burnout complaints among their colleagues reported higher levels of burnout than those who did not perceive such complaints. In addition, individual susceptibility to emotional contagion is positively related to burnout, particularly in combination with the perception of burnout symptoms in their colleagues. That is, doctors who perceive burnout complaints among colleagues and who are susceptible to emotional contagion report the highest exhaustion scores. Instead of using peer ratings of others’ levels of burnout as in the previous studies, Meredith et al. (2020) used social network analysis to study burnout contagion among teachers. Their results show that social interactions between teachers act as conduits for burnout contagion, particularly when: (1) teachers have frequent contact; (2) they are reciprocally and strongly tied to each other; and (3) their interactions are instrumental (i.e., aimed at achieving work-related goals) as well as expressive (i.e., include a strong affective, emotional component). Moreover, it appears that these three characteristics of teachers’ social interactions predict their levels of emotional exhaustion (but not depersonalization and reduced professional efficacy) two years later. Hence, it seems that specific characteristics of social relationships matter as they relate to the strength of the burnout contagion process.

In summary, these three psychological explanations are, in a way, complementary. The first approach assumes that burnout results from emotionally charged relationships between service providers and recipients and stipulates a dynamic process in which depersonalization is considered to be a dysfunctional attempt to deal with feelings of emotional exhaustion. However, it remains unclear why this relationship is so demanding. This is where the second approach kicks in by emphasizing that this relationship may be characterized by a lack of reciprocity. This lack of reciprocity, which may exist in not only interpersonal relationships with recipients but also the relationship with the team and with the organization, lies at the core of the burnout syndrome. This is also recognized by the heuristic Six Areas of Working Life approach, three of which (i.e., reward, fairness, and values) have to do with reciprocity, in one way or another. It appears that the balance between give and take at various levels is crucial for the development of burnout. Finally, once burnout has occurred among individual team members, a group-based process of emotional contagion seems to play a role in spreading it amongst other team members.

Interventions

A curious discrepancy exists regarding interventions to reduce burnout. On the one hand, a true burnout industry has emerged over the years with countless providers of just as many different, sometimes even very exotic, interventions. Yet, on the other hand, relatively few solid, well-designed studies on their effectiveness have been carried out. Based on the systematic reviews and meta-analyses discussed below, it is estimated that only .004% of all publications evaluate the effectiveness of burnout interventions.

In principle, burnout interventions may target either the individual or the organization. Most interventions, by far, focus on the individual, probably because organizational interventions are more difficult to
implement as they may interfere with work and interpersonal processes at the shop floor. Examples of individual approaches are cognitive-behavioral interventions (e.g., stress inoculation training, rational emotive therapy), time-management training, and relaxation, mindfulness, and interpersonal skills training, whereas examples of organizational interventions include the introduction of new human resources (HR) practices, job redesign (e.g., task restructuring), time rescheduling, and management development (for more detailed descriptions, see Schaufeli & Enzmann, 1998, pp. 143–183).

The picture that emerges from various meta-analyses is rather unambiguous and consistent: burnout interventions have a statistically significant, small positive effect with effect sizes (Cohen’s d about .20). This is illustrated by a meta-analysis of 47 controlled studies among different occupational groups, of which 96% focus on individual interventions (Martjevoz, 2014). Results show significant but small effects on general burnout (Cohen’s d = .22) and exhaustion (d = .17), but not on cynicism/depersonalization (d = .04) or reduced professional efficacy (d = .02). The strongest positive effect is found for relaxation, followed by learning new role behavior and cognitive-behavioral interventions, respectively.

More or less similar results are obtained by various meta-analyses that focused on specific occupational groups. For instance, a meta-analysis of 23 controlled intervention studies among teachers (Lancu et al., 2018) shows small yet statistically significant positive effects on overall burnout (d = .18), exhaustion (d = .18), and reduced efficacy (d = .14), but not on depersonalization (d = .03). The strongest effects are found for cognitive-behavioral approaches, mindfulness and stimulating professional development, and, to a somewhat lesser extent, learning how to organize social support. A meta-analysis of 27 controlled intervention studies among mental health professionals performed by Dreison et al. (2018) shows small, positive effects on overall burnout (Hedges’ g = .13), exhaustion (g = .20), and depersonalization (g = .15), but not on reduced efficacy (g = .08). Subsequent moderator analyses shows that the effect of person-oriented interventions is stronger than that of organization-oriented interventions.

Physicians are the most often studied occupational group. A meta-analysis identified 15 randomized clinical trials (RCTs) and 37 controlled cohort studies carried out among physicians and find significant intervention effects on overall burnout, emotional exhaustion, and depersonalization, with absolute symptom levels decreasing on average 10%, 14%, and 4%, respectively (West et al., 2016). Lack of efficacy is not considered in this study. Most interventions focus on individual physicians (e.g., mindfulness, stress management and self-care training, communication skills training). Another meta-analysis including 20 intervention analyzed interventions to reduce physician burnout (Panagioti et al., 2017). The database of this analysis partly overlapped with the previous meta-analysis but only focused on emotional exhaustion, and, most importantly, additional subgroup analyses were carried out. First, and not surprisingly, a small but significant positive intervention effect was found (d = .29). Second, this effect appeared to be stronger for organization-oriented interventions (d = .45), such as rescheduling hourly shifts, reducing workload, discussion meetings to enhance teamwork, leadership, and structural changes than for physician-oriented interventions (d = .18), such as mindfulness, stress reduction techniques, exercise, and educational interventions targeting physicians' self-confidence and communication skills. Third, no difference in effectiveness of interventions was shown for more vs. less experienced physicians or for those working in primary vs. secondary care settings.

Typically, all meta-analyses discussed above include preventive interventions among those without or with mild burnout complaints who are still working. But what about the effectiveness of treating those with severe burnout symptoms? Ahola et al. (2017) identified 18 studies, of which four were RCTs, that evaluated the effectiveness of burnout treatment programs. Mostly this involved individual cognitive-behavioral therapy, but also group interventions based on psychosocial and sociodrama methods. Unfortunately, their meta-analysis did not show a significant decrease in burnout complaints across the intervention groups compared to the waitlist control groups. A disappointing result indeed, in terms of both the number of studies and their effect. A Swedish follow-up study showed that seven years after burnout treatment finished, only 16% fully recovered, whereas 73% reported reduced stress tolerance, 46% extreme fatigue, and 43% problems with memory (Glise et al., 2020). So, it seems that residual symptoms are very persistent in burnout disorder.
In addition to symptom reduction, return to work is another important outcome of burnout interventions. Although both are related, they do not completely overlap. For instance, even if burnout symptoms have not completely disappeared, gradual return to work is possible. Indeed, modern disability management approaches assume that return to work fosters symptom reduction (Waddell & Burton, 2006). This view contradicts the traditional approach, in which return to work should only be considered after all symptoms have disappeared.

How effective are interventions that foster return to work after burnout? A meta-analysis of eight interventions that are targeted at return to work among those with clinically significant burnout do not find significant results compared to a waitlist control group (Perski et al., 2017). The extent to which burned-out employees fully returned to work does not differ whether they had received treatment, were on the waiting list, or received ‘treatment as usual’. However, compared to the control group, the intervention group returns to work partially more quickly. Remarkably, burnout, anxiety, and depression symptoms do not decrease significantly as a result of return-to-work interventions. So, despite the fact that symptom levels do not decrease, interventions lead to faster partial but not full return to work. This illustrates that symptom reduction and return to work are indeed two relatively independent outcomes.

In conclusion, it seems that burnout symptoms can be decreased, particularly as a result of person-oriented interventions, such as relaxation, mindfulness, and cognitive-behavioral approaches. This is most convincingly shown for general burnout and exhaustion, and less so for cynicism/depersonalization and personal efficacy. This pattern is similar across various occupational groups, such as teachers, mental health care workers, and physicians. One meta-analysis found that organization-oriented interventions were more effective than interventions that were targeted to individual physicians. It is important to note that these positive intervention effects apply to those with relatively mild complaints. It seems that interventions for those with severe burnout symptoms are less effective, though. In addition to symptom reduction, some interventions also explicitly aim to foster return to work. These interventions are partly successful because they lead to partial work resumption but not to symptom reduction or full work resumption.

Conclusions and Outlook

Burnout – a metaphor that refers to a severe loss of mental energy – can be seen as a modern affliction that emerged in the 1970s due to the transformation from an industrial into a postindustrial society. In a way, this parallels the rise of neurasthenia – a syndrome akin to burnout – at the end of the 19th century when the agricultural society transformed into an industrial society. Originally, it seemed that burnout occurred exclusively among human services professionals who work with other people, but this resulted from the fact that the questionnaire for measuring burnout was designed to be used in this occupational group only. Once a general version of the MBI – the leading questionnaire that serves as the gold standard to assess burnout was developed, burnout was also observed in other occupational groups. The MBI, which boasts good psychometric qualities, has been challenged by other questionnaires that reduce burnout to mere exhaustion. However, this boils down to throwing the baby out with the bath water because it denies the specificity of burnout. After all, conceptually speaking, burnout is a chronic, work-related state of fatigue that is characterized by the inability and the unwillingness to spend effort, representing its energetic and motivational component, respectively. Hence, inability (exhaustion) and unwillingness (mental distancing) are two sides of the same burnout coin.

Throughout this chapter, it became clear that mild burnout symptoms have to be distinguished from severe symptoms that are indicative for a burnout disorder. On the one hand, burnout may be considered a multidimensional phenomenon that can be measured using continuous scales, while on the other hand, it may also be considered dichotomously in terms of a diagnosis that is based on a clinical interview. Typically, most psychological research focuses on mild burnout symptoms – as assessed by self-reports – among those who are working. This means that our current knowledge of burnout is mainly based on workers with mild symptom levels. This knowledge can be used to prevent the development of burnout. Indeed, various successful interventions have been developed, at both the individual and the organizational level. In contrast, research among those who suffer from severe burnout and therefore dropped out of work is relatively scarce. Hence, more research is needed on severe burnout. An important prerequisite is that agreement exists about the diagnostic guidelines for burnout.
disorder that goes beyond the mere description that is included in the ICD-11, which is essentially based on the original definition of Maslach and Jackson (1981). In order to boost research on severe burnout, clinically validated cut-off values should be available, as for instance, in the BAT; Schaufeli et al., 2020b).

Unfortunately, our current knowledge on the prevalence of burnout is rather limited because proper epidemiological studies are lacking. It seems that about 15% of the working population shows elevated levels of exhaustion. But, as was noticed above, burnout goes beyond mere exhaustion. Estimates of burnout prevalence in various occupational groups vary from 0% to almost 90%, which, of course, is rather uninformative (see ‘Prevalence’). The reason for this exceptionally wide range is that virtually all studies use neither representative samples nor validated cut-off values so that results cannot be compared. Representativeness and the use of similar, valid cut-offs are necessary for a reliable estimation of the prevalence of burnout. Unfortunately, the MBI cannot be used for epidemiological research because it was not designed for that purpose; it yields three scores that should not be combined into a single, overall burnout score (Maslach et al., 2017). In addition, the MBI lacks validated cut-off scores to discriminate between burnout ‘cases’ and ‘non-cases’. Although the MBI can be used to separately assess and compare mean levels of exhaustion, cynicism, depersonalization, and reduced efficacy between groups, it cannot establish level of burnout as such. This points to a fundamental ambiguity of the MBI: burnout is defined as a ‘syndrome’, yet only its components can be measured separately. The recently developed BAT overcomes this problem as it produces a single burnout score (Hadjizboklanovic et al., 2020).

A host of potential antecedents, consequences, and correlates of burnout has been uncovered (see ‘Interventions’), but it also appears that the idea that burnout mediates the effects of unfavorable job characteristics on negative personal and organizational outcomes is an oversimplification. Instead, it seems that reciprocal causation plays a role as well. For instance, particular job demands, such as work overload, may act as not only antecedents but also consequences of burnout, thus pointing to a dynamic and bidirectional rather than a one-directional process. To further complicate the picture, person characteristics may play a moderating role in this process; for instance, by buffering or exacerbating the negative impact of job characteristics on burnout. Taken together, it seems that the burnout process is dynamic and rather complex. Although the different elements of that process have been identified (job demands, lacking job resources, person factors, individual and organizational outcomes), future research should uncover how these elements are linked and how the process unfolds across time.

It seems that, unfortunately, the quest for biomarkers that can be linked to burnout has been in vain so far. Perhaps this might be due to a lack of sensitivity of the physiological measures applied or to poor sampling of burnout cases. But it might also be that we are simply on the wrong track by studying peripheral biomarkers and a better way forward would be to explore other biological pathways, such as brain activity or epigenetics. For instance, Van Luijtelaar et al. (2010) found different electrophysiological brain activity in burnout patients compared to healthy controls that also differs from patterns found in the literature for depression and chronic fatigue syndrome. Moreover, it is found that burnout severity of medical professionals can be explained by reduced empathy-related brain activity (Tei et al., 2014) and that burnout severity is related to epigenetic changes (Bakusic et al., 2020). Hence, it seems worthwhile to further explore these avenues.

As far as the psychological explanations for burnout are concerned, the picture is somewhat scattered. No overarching burnout theory exists and probably never will, given the complexity of the phenomenon. However, two handy heuristic frameworks exist that allow for the integration of most burnout research: the Job-Demands Resources model and the Six Areas of Working Life approach (see ‘Explanations’). Although useful for practitioners who look for possible drivers of burnout, these frameworks do not explain the underlying psychological mechanisms of burnout. Three theoretical approaches supported by empirical evidence have been discussed in ‘Explanations’, in which emotional overload, lack of reciprocity in social exchange relations, and emotional contagion play a key role. However important these processes may be, given the nature of burnout as energetic and motivational dysfunction, it makes sense to also consider theories of work effort (Hockey, 2013) and motivation, such as conservation of resources theory (Hobfoll, 2011) or self-determination theory (Deci & Ryan, 2012), for explaining burnout.
There is considerable empirical evidence for the effectiveness of burnout interventions, at the individual as well as the organizational level. Although the effects are small, they are consistent across various occupational groups and work settings and are relevant for preventing burnout. However, most interventions are targeted at the individual and carried out among relatively healthy workers with only mild burnout symptoms. Research on organizational interventions is scarce, as is research on the effectiveness of interventions for severe burnout. Clearly, more intervention studies are needed, particularly focusing on the organization and on those with severe burnout.

So, taken together, in order to increase our understanding of burnout, future research should focus on (1) severe burnout, using clinical interviews as well as clinically validated cut-off scores; (2) the prevalence of burnout across various occupational groups, industries, and countries; (3) the dynamic nature of burnout and its development across time; (4) alternative biological pathways that go beyond peripheral biomarkers; (5) explanatory frameworks using theories on work effort and motivation; and (6) burnout interventions, particularly regarding severe burnout. Burnout is here to stay, as is burnout research.

References


