

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

A. Milićević-Kalašić (✉)

Head of Mental Health Team Institute of Gerontology, Belgrade,
Trnska 7, 11000 Belgrade, Serbia
e-mail: aleksandrak@excite.com

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 (Włodarczyk 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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