Occupational Burnout

9

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Introduction

Burnout is a relatively new concept (coined with its contemporary intent in 1975), although interest in this topic has significantly increased over the last 40 years. Most who have studied burnout agree that it is a multifaceted construct, including (but not limited to) domains like work-supportive energy (i.e., exhaustion and fatigue), perception of work meaningfulness, work-directed concentration and focus, and extent of work engagement. Although definitions vary, the most widely accepted model of burnout has been developed by Dr. Christina Maslach, Professor of Psychology at the University of California at Berkley, who conceptualized it as a tripartite construct comprised of emotional exhaustion, depersonalization, and personal accomplishment. Although many agree with the validity of the Maslach model, there has been some debate on the relative value of its components. Exhaustion has received the greatest attention throughout the burnout research literature, with some suggesting that it is a primary or singularly necessary criterion for burnout (Maslach, Schaufeli, & Leiter, 2001; Shirom, 1989; cf. Pines & Aronson, 1988). Maslach and colleagues argue that one factor is not enough to fully define the complex process of occupational burnout. They note, "…the fact that exhaustion is a necessary criterion for burnout does not mean it is sufficient. If one were to look at burnout out of context, and simply focus on the individual exhaustion component, one would lose sight of the phenomenon entirely" (p. 403).

Occupational burnout can be a significant concern for workers and employers alike. There are reasonable data to suggest that employees experiencing burnout exhibit significant decrements in the

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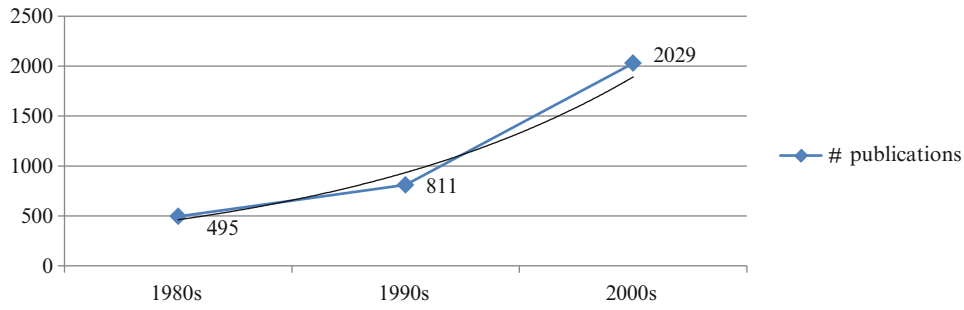

Fig. 9.1 Number of burnout PSYCHINFO publications

quality and quantity of their work output (Firth & Britton, 1989), increased rates of absenteeism and thoughts of leaving their jobs (Chambers, 1993), degraded indices of physical health and immune functioning (Armon, Melamed, Shirom, & Shapira, 2010; Mommersteeg, Heijnen, Kavelaars, & van Doornen, 2006; Shirom et al., 2006), decreased career satisfaction and quality of life (Demerouti, Bakker, Nachreiner, & Schaufeli, 2000; Evans et al., 2006; Sprang, Clark, & Whitt-Woosley, 2007), and even changes in risk for suicidal ideation (Dyrbye et al., 2008). The purpose of this chapter is to provide the reader with an historical context for the evolution of burnout research, to examine what is currently known about models of burnout, to review mediating and moderating variables linked to burnout development and maintenance, to introduce various assessment options for burnout treatment and research, and to direct the reader to resources for burnout interventions. Finally, although our understanding of the burnout concept has grown tremendously since the term was coined in the mid-1970s, there are still numerous gaps in the research that should be addressed. We hope to orient the reader to these gaps and provide directions for future research.

The History of Burnout

Burnout has been a subject of speculation, consternation, and concern since the formal development of work concepts thousands of years ago (cf. Donkin, 2010). Scientific investigation of the occupational burnout construct, however, likely started in the latter part of the twentieth century as greater attention was paid to the personal toll of work on workers. Subsequent research has firmly established a scientific basis for burnout, and burnout research has significantly grown in the extant research literature as a result. A rudimentary OvidSP search of PSYCHINFO for burnout (termed as "(burnout.ti OR burnout.ab) limit to peer reviewed journal") reveals over 3,800 published studies dating back to 1975. The number of burnout papers recorded in each decade since the 1980s reveals an exponentially increasing trend providing clear evidence of the growth in burnout research interest. As work on burnout continues, it is clear that studies of burnout will proliferate well into the near future. For example, the first three decades of burnout research revealed publication increases of 64% from the 1980s to the 1990s and 150% from the 1990s to the 2000s. Over 500 burnout papers were published over the first 2 years of the 2010s decade which, when prorated over the rest of the decade, would result in over 2,500 publications between 2010 and 2020 representing an increase of 23% (Fig. 9.1).

Maslach et al. (2001) offer one of the best overviews of how burnout research has developed since its formal inception in the 1970s. They note that the concept of burnout, although initially well-intended as a way of helping others understand the relationship between workers and their work, was poorly received by the scientific community as a representation of "pop psychology." As a result, few academic researchers were willing to critically examine the topic, and scientific submissions covering

burnout research had a poor chance at publication. Maslach et al. (2001) posit, however, that research on burnout began to grow beginning with a "Pioneering Phase," during which the concept was originally introduced and defined by pioneers like Herbert Freudenberger (1975) and Christina Maslach (1976). It is clear from their accounts that these early concepts were based not only on their research at the time but also on personal experience with loss of energy and motivation in their own work environments. Unfortunately, burnout was originally considered a social rather than research concern, and was not treated with significant scientific rigor until the 1980s, when changes in the organization of social services and the individualization of modern work resulted in increased burnout among American workers (Cherniss, 1980; Maslach & Schaufeli, 1993). As burnout proliferated, social scientists and behavioral health researchers began to recognize the importance of addressing this concern.

The "Empirical Phase" of burnout research, during which the concept has been scientifically examined through empirical research and more substantively defined, began in the 1980s and has extended to the present. Maslach and Schaufeli (1993) note that early burnout research seemed to be relegated to clinical rather than academic investigation. Only 10% of studies reviewed by Perlman and Hartman in 1982 presented empirical data on burnout, and the majority of "scientific" submissions in the early 1980s provided anecdotal or clinical accounts of burnout symptoms in patients. Maslach and Jackson (1984), based upon their attempt to publish the initial psychometric details about the Maslach Burnout Inventory, expressed their concern that some academics may not embrace the empirical study of burnout. They suggested that the scientific community had (erroneously) deemed burnout a "pseudoscientific" or "fad" concept, thereby attributing a low priority to burnout research. However, research rapidly grew with the dissemination of the first theories and self-report measures of burnout, suggesting that the scientific community may have been waiting for a clear operational definition of the construct before testing it.

Examining burnout research proliferation year-by-year shows a clear jump in burnout research from 1981 to 1982, coinciding with the first publication of Maslach's influential burnout inventory. It must also be noted, however, that this "jump" also coincides with the re-categorization of burnout in the NCBI Medical Subject Headings (MeSH) from "Stress, Psychological" (introduced in 1973) to "Burnout, Professional" (subsumed as a separate category under "Stress, Psychological" in 1982). Although likely not a cause for the increased prevalence of burnout research, this change in MeSH structure may make "burnout" research artificially easier to find after 1982 and, therefore, more scientifically obvious or prominent. Regardless, the scientific importance of burnout is growing and there is much work to be done in order to expand on the existing theories. The new millennium brought about significant growth in burnout research, though factors attributable to this rise are unclear. Although the ongoing conflicts in Iraq and Afghanistan may play a role in the growth of burnout research (occupational burnout among military personnel and their health-care providers is a concern during wartime), a PSYCINFO search combining burnout (burnout.ti or burnout.ab) and military (military.mp or combat.mp or war.mp) terms limited to publication between 2002 and 2011 returns only 40 publications. Obviously, the rapid increase in burnout research over the last decade is motivated by more than the ongoing war effort (Fig. 9.2).

Models of Burnout

Maslach Burnout Model

The most commonly referenced definition of burnout was initially reported by Maslach in 1982. At first, Maslach's model of burnout characterized burnout as a syndrome that mainly affected people

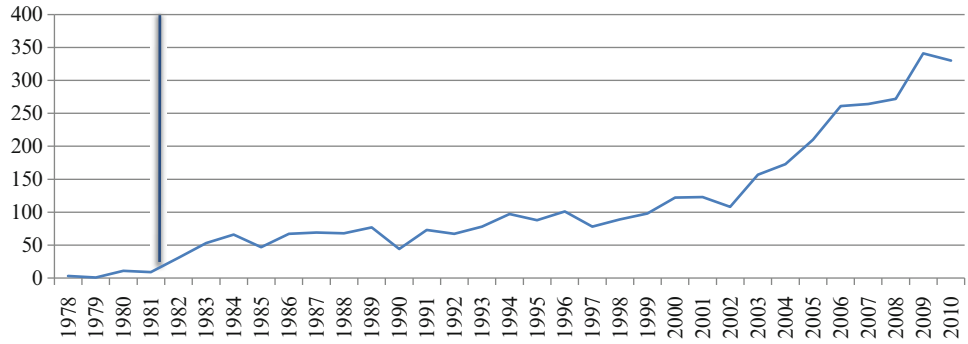

Fig. 9.2 Number of "burnout" publications, per year

who work in human resources and health care (primarily jobs that require the direct care of others), but it is now believed that burnout can emerge in any occupation, including management and technology (Leiter & Schaufeli, 1996; Maslach & Schaufeli, 1993). As a result, Maslach's model has now expanded to include all professions, further contributing to the growth in burnout research and interest. Although proposed burnout mechanisms vary, Maslach and Leiter (1997) proposed that burnout occurs when there are mismatches between professionals and their job contexts. They defined an occupational mismatch as a situation in which working relationships change in a way that is unacceptable to the worker. For example, workers who find themselves saddled with an unwanted, increased workload are vulnerable to burnout. Occupational mismatch appears to contribute to burnout not only categorically (e.g., present = risk for burnout; absence = no risk) but also linearly. Leiter and Maslach (2000) found that greater job–worker mismatches result in linear increases in the likelihood of burnout.

In Maslach's multidimensional model, burnout consists of three primary dimensions: emotional exhaustion, depersonalization (cynicism), and reduced personal accomplishment. Emotional exhaustion occurs when an individual feels overextended and exhausted by the many emotional demands at work (Maslach & Goldberg, 1998). The most common sources of emotional exhaustion include work overload and personal conflict at work. When exhausted, workers lack the needed energy to complete their assigned tasks and feel unable to muster the energy to deal effectively with others. They also lack the ability or resources to replenish their energy. Depersonalization occurs when an employee is detached and cynical toward the individuals receiving a service or care. Depersonalization represents a negative or excessively detached response to other people (Maslach & Goldberg, 1998), likely resulting from an overload of emotional exhaustion. Initially, depersonalization may be self-protective. It allows an employee to become detached from his/her work and provides emotional protection from the work environment. However, it may also lead to dehumanization, which can lead to deterioration in the quality of care or service that is provided (Maslach & Jackson, 1981). Reduced personal accomplishment occurs when an employee appraises him/herself as ineffective in fulfilling one's job responsibilities (Maslach, Jackson, & Leiter, 1996). This personal accomplishment component is a self-evaluative dimension of burnout (Maslach & Goldberg, 1998). It includes a decline in productivity and a decrease in feelings of competence. Individuals experience a growing sense of inadequacy about their ability to help others, which may lead to a sense of failure.

In the Maslach model, it is believed that emotional exhaustion appears first (Maslach & Goldberg, 1998), leading to depersonalization. In other words, lack of energy makes it difficult to focus on job demands and the needs of others, leading to detachment at work. Research suggests that reduced personal accomplishment develops separately from exhaustion and depersonalization. Recently, research has identified another factor that seems to play a significant role in burnout: work engagement. High

levels of work engagement (described as a state of high energy, instead of exhaustion, strong involvement, rather than detachment, and a high sense of self-efficacy, instead of decreased personal accomplishment) seem to predict burnout, though the relationship between burnout and work engagement seems to be more than purely antipodal. Indeed, engagement is seen as a positive trait rather than a negative one (Maslach & Goldberg, 1998) and is a predictor of job satisfaction rather than an indicator of burnout.

Job–Person Fit Model

The Job–Person Fit Model of burnout is a causal explanatory model that focuses on the role of subjective employee assessment of self and the work situation, which may or may not accurately represent objective, real relationships. The basic premise of this model is that stress results from a poor fit between the individual and the job (French & Kahn, 1962). When applied to burnout, greater mismatches between job and employee are believed to contribute to and increased likelihood for burnout to occur (Maslach & Goldberg, 1998). Maslach and Leiter (1997) identified six areas where a mismatch can occur. In each of the six areas, a mismatch between person and job results in burnout symptoms as defined by the Maslach model (emotional exhaustion, cynicism, and a decrease in personal efficacy). This approach differs from other burnout models because it focuses on the relationship between the employee and the job, rather than on either factor alone, which can be beneficial because it allows multiple avenues for burnout prevention.

According to Maslach and Leiter (1997), the first and most common mismatch relates to work overload. Employees have too much to do and not enough resources available to complete tasks. It becomes difficult to keep up with the pace of work, and the individual falls further behind. If the situation becomes chronic and the employee is not given the opportunity for needed rest and recuperation, burnout sets in. This can lead to decreased work quality and a disintegration of work relationships. Another job mismatch occurs when employees lack control over the work they are expected to complete (Maslach & Leiter, 1997). Lack of control is evident when an employee is not given a voice in decision-making or feels as though they are being micromanaged. Often, employees want their opinions and thoughts to impact the work setting. However, if people feel they are not heard or valued, it often leads to feelings of work-related ineffectiveness that can potentiate burnout.

Another proposed mechanism of burnout through Job–Person Fit Model involves perceptions of insufficient awards resulting from work (Maslach & Leiter, 1997). This job mismatch focuses on the negative consequences of a perceived lack of meaningful rewards for work completed by an employee. These rewards can be both internal and external. Internal rewards can include praise and feelings of pride in a job well done which lead to feeling effective in their job (or ineffective when absent). External rewards include the obvious, such as pay and benefits. If a worker feels as though the rewards of work are incongruent with effort, burnout can result. A fourth job–person mismatch occurs when an employee loses a sense of connection with coworkers, called breakdown of community (Maslach & Leiter, 1997). Individuals often work best in situations where others provide positive social support for one another. This allows employees to "weather the storm" together when work conditions become difficult; however, if there is not a sense of community in one's workplace, conflict may result. Unresolved conflict produces negative feelings, frustration, and decreases the likelihood of positive social support.

Absence of fairness in the workplace is also considered a characteristic of job mismatch (Maslach & Leiter, 1997). Fairness allows employees to feel respected and gives them a sense of what to expect in the workplace. Unfairness can occur in a number of ways. It may occur when the workload is not equally shared, or when salaries and promotions are not based on work performance. Feelings of

unfairness may be propagated if there is not a grievance policy in place to allow employees to discuss frustrations. Finally, the last area of job mismatch involves value conflict (Maslach & Leiter, 1997). This occurs in situations where there is a mismatch between employees' personal values and the requirements to carry out the job. This can be seen in jobs where employees are not allowed to be forthcoming with all information or may even be asked to lie. It can also be seen when an individual's values do not align with the overall organization's goals (i.e., in the military).

Job Demands–Resources Model

The central tenet of the Job Demands–Resources Model (JD-R) is that work characteristics invoke two different processes: consideration of job demands weighed against perceived job resources. This process occurs regardless of the occupation being examined, and both of these two processes have the ability to explain the complex relationship between burnout and work engagement (Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007; Schaufeli & Bakker, 2004). The first process (consideration of job demands) states that high levels of perceived demands associated with work may lead to depletion in energy, which then leads to exhaustion and health problems that are characteristic of occupational burnout (Demerouti et al., 2000; Lee & Ashworth, 1996). Job demands are physical, social, and organizational aspects of the job that expend both physical and mental effort, and are associated with psychosocial costs such as exhaustion (Crawford, LePine, & Rich, 2010). Factors like workload, time pressures, and the work environment can contribute to perceived job demands. The increased stress from responding to job demands may eventually leave an employee feeling drained, ultimately leading to burnout. Job resources represent the other side of the Job Demands Resources Model, and can motivate an individual to persist with work resulting in improved work engagement. Job resources include aspects of an occupation that enable employees to achieve work goals, stimulate personal growth, and help manage job demands. This could include anything that enables an employee to get the job done, reduce job demands on a psychosocial (stress) or physical (strain) level, and stimulate personal growth and development (Demerouti, Bakker, Janssen, & Schaufeli, 2001; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). Job resources can include job control, participation in decision-making, receiving constructive feedback about work, and the presence of social support.

When job resources are not available and job demands begin to predominate, workers may begin to experience frustration that may lead to work disengagement. Disengagement is characterized by low motivation, lack of interest in work, and a weakening loyalty to the organization. Disengagement from work may be a self-protective mechanism, whereby a frustrated worker avoids the frustration of not meeting work-related goals by interrupting effort or simply not caring about goal completion (Peterson et al., 2008). In jobs with both high demands and limited job resources, it is assumed that employees will experience both exhaustion and disengagement. Employees experience stressful work conditions that are not mediated by positive factors that encourage engagement in the work environment. Various models of occupational burnout tout exhaustion and disengagement as the primary causal components. In these models, exhaustion, cynicism, and a decreased efficacy within the workplace all contribute to burnout (Demerouti, Bakker, Janssen, et al., 2001; Demerouti, Bakker, Nachreiner, et al., 2001; Maslach et al., 1996).

Crawford et al. (2010) introduced a differentiated Job Demands-Resources Model. This updated model demonstrates the variable role of job demands across different occupations by incorporating components of the transactional theory of stress. According to the *Transactional Theory of Stress*, individuals evaluate stress situations in terms of the impact of these situations on the individual's well-being, especially when stressors are perceived as being either challenging or threatening (Lazarus & Folkman, 1984). This can further be divided into two factors: challenge stressors and hindrance

stressors (Cavanaugh, Boswell, Roehling, & Boudreau, 2000). Challenges tend to be seen as stressful job demands that promote job mastery, personal growth, or future gains (Crawford et al., 2010). Challenge demands may include things such as high workload, time pressure, or increased levels of job responsibility. Some employees see these challenges in a positive light as opportunities for personal growth and feel that their increased efforts will be rewarded (i.e., pay raise, praise, or promotion). Because these types of job demand generally elicit positive emotions, they can often lead to improved work performance vis-à-vis engagement and active problem-focused coping styles. Despite the increase in positive feelings and engagement, however, job challenges can deplete energy resources and increase strain which, in turn, result in increases in probability of developing burnout. Hindrances, on the other hand, are stressful job demands that have the potential to prevent personal growth, learning, and goal attainment (Crawford et al., 2010). Employees tend to appraise hindrances as stressful demands that deter progress toward goal attainment and personal rewards, such as pay raise, promotion, or recognition. Hindrances include anything that employees feels needlessly obstructs them from goal acquisition, such as job politics, job role conflicts, and daily hassles. They generally elicit negative emotions and employees disengage from work because they do not feel as though they have the coping skills to effectively deal with the stressors leading to burnout. Therefore, for this model, job characteristics can be categorized in terms of challenge and hindrance demands instead of merely as job demands. Job resources remain the same in both models. Job resources are still viewed as negatively related to burnout in Crawford's model because an individual with plentiful work resources is more easily able to meet job demands (Crawford et al., 2010). Job resources are also positively associated with engagement because individuals who have the available resources to successfully meet job demands are likely to feel their needs for autonomy, growth and development, and competence are being met, thereby allowing them to become more willing to become engaged in the work environment.

Conservation of Resources Theory

Conservation of Resources Theory (CRT) provides yet another comprehensive lens used to explain burnout (Hobfoll & Shirom, 1993). In the CRT model, burnout is viewed as the psychosocial strain that results from depletion of personal coping resources in the workplace. This psychosocial strain is most likely to occur in situations where there is either an actual or perceived loss of resources. Ultimately, individuals are motivated to acquire and protect resources, which can include anything individuals' find personally valuable in their work environment. These resources typically fall into four different categories: object, conditions, personal, or energy (Wright & Hobfoll, 2004). Object resources are usually tangible items, such as a home or automobile that a worker uses to facilitate work activity. Condition resources are less tangible, often described as status in the community or organization. Personal resources describe subjective work-related experiences, such as feelings of achievement and self-efficacy, that help motivate an individual to work. And finally, energy resources can include various resources that may be expended in service to work completion, like time or money. Resources are believed to function in a personal economy whereby, once resources are acquired, an individual invests them to obtain additional resources (Hobfoll, 2001). For example, an individual may develop skills at work, which are then transferred into improved work performance in the hopes of acquiring more resources (such as increased pay or promotion; Halbesleben, Harvey, & Bolino, 2009). If resources are threatened, lost, or if demands exceed resources, individuals are likely to experience negative consequences and distress leading to emotional exhaustion, the key component of burnout (Harris, Harvey, & Kacmar, 2009). Once employees become emotionally exhausted, they are less likely to reinvest their limited resources and instead become defensive to protect remaining

resources (Hobfoll, 2001). It is likely that, once an employee experiences a loss in resources, the quality of their work declines because they become focused on only engaging in the most necessary of tasks or parts of their jobs that have typically provided the best return in the past (Baltes, 1997).

Psychosocial Inventories

The following is a brief discussion of the most commonly researched psychosocial inventories measuring burnout. This partial list includes the Maslach Burnout Inventory, the Burnout Measure, the Shirom-Melamed Burnout Questionnaire, The Oldenburg Burnout Inventory, and the Copenhagen Burnout Inventory. This list is not meant to be exhaustive, as there are other less commonly used measures of burnout available.

Maslach Burnout Inventory

A number of self-report instruments have been developed to measure the construct of burnout, but the most popular by far is the Maslach Burnout Inventory (MBI; Maslach et al., 1996) which has three versions available—the MBI Human Services Survey, the MBI Educators Survey and the MBI General Survey (for all occupations). The inventory is self-administered, and takes approximately 10–15 min to complete. The original MBI consists of 22 items, divided into three subscales (emotional exhaustion, depersonalization, and personal accomplishment), which have been confirmed in factor analyses (Maslach et al., 1996). Statements are written in the form of personal feelings or attitudes. Participants use a 0–6 Likert-type scale to indicate frequency of experiencing a particular feeling regarding work from "never" to "daily." Higher scores on depersonalization (score range 0–48) and emotional exhaustion (score range 0–54) indicate higher levels of burnout. The personal accomplishment (score range 0–48) subscale is scored in the opposite direction, with lower scores indicating higher levels of burnout. This instrument has been shown to have sufficient validity, reliability, and internal consistency (Maslach & Jackson, 1981; Pines & Maslach, 1978).

Burnout Measure

Another commonly used instrument to assess burnout is the *Burnout Measure* (BM; Pines & Aronson, 1988). The BM is a 21-item self-report instrument (rated on a 7-point frequency scale; ranging from "never" to "always") that assesses an individual's level of physical, emotional and mental exhaustion. The BM assesses burnout using a total score. Prior to the construction of the MBI's alternate forms, the BM was commonly used because (unlike the original MBI) it had the ability to be used outside the human service professions (Schaufeli & Van Dierendonck, 1993). The BM is conceived as a one-dimensional measure of burnout. Internal consistency of the BM ranges from 0.91 to 0.93 (Pines & Aronson, 1981). This measure correlates highly with the MBI's dimensions of exhaustion and depersonalization, and moderately with personal accomplishment (Schaufeli, Enzmann, & Girault, 1993). The BM has also shown a 1-month test–retest reliability of 0.89 (Pines, 1988).

Shirom-Melamed Burnout Questionnaire

The *Shirom-Melamed Burnout Questionnaire* (SMBQ) is a 22-item measure of burnout (Melamed et al., 1992; Shirom, 1989). This measure consists of an emotional exhaustion and physical fatigue

subscale, a tension and listlessness subscale, and a cognitive weariness subscale. Each item is scored on a 7-point Likert-type scale, ranging from 1 ("almost never") to 7 ("almost always"). Use of this measure was found to be positively associated with episodic stress (Shirom, 1989) and chronic work stress (Kushnir & Melamed, 1992). The SMBQ has demonstrated satisfactory validity (Lindstrom, Aman, & Norberg, 2011).

Oldenburg Burnout Inventory

A more recent measure of burnout is the *Oldenburg Burnout Inventory* (OLBI; Demerouti, Bakker, Janssen, et al., 2001; Demerouti, Bakker, Nachreiner, et al., 2001). This inventory incorporates both positively and negatively worded items to assess two core dimensions of burnout: exhaustion and disengagement from work. Exhaustion is defined as the consequences of intense physical, affective, and cognitive strain. Exhaustion is due to the long-term, prolonged exposure to work demands. The items on the exhaustion subscale refer to feelings of emptiness, being overtaxed from work, having a strong need for rest, and experiencing physical exhaustion. Disengagement is the distancing of oneself from work in general (Demerouti, Mostert, & Bakker, 2010) due to prolonged work demands. Disengagement also encompasses experiencing negative attitudes toward work. Each subscale consists of eight items (four are positively worded; four are negatively worded). Each item has four responses ranging from 1 ("totally disagree") to 4 ("totally agree"). The OLBI has been shown to have factorial validity and convergent validity with the MBI-General Survey (Demerouti, Bakker, deJonge, Janssen, & Schaufeli, 2003).

Copenhagen Burnout Inventory

The *Copenhagen Burnout Inventory* (CBI; Kristensen, Borritz, Villadsen, & Christensen, 2005) is a measure of burnout consisting of 19-items and three scales that measure different dimensions of burnout. These dimensions include personal burnout, work-related burnout, and client-related burnout. The first scale (personal burnout) is a measure of the degree of physical and psychosocial fatigue and exhaustion experienced by a person regardless of their participation in the workforce. The work-related burnout scale measures physical and psychosocial fatigue as it relates to work. The client-related burnout scale measures physical and psychosocial fatigue related to working with clients. A higher score on the measure indicates a higher level of burnout. The three scales have shown good criterion-related validity and reliability in studies with Danish and Australian samples (Kristensen et al., 2005; Winwood & Winefield, 2004).

Utrecht Work Engagement Scale (UWES)

The *Utrecht Work Engagement Scale* (Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002) is one of the most widely used measures of work engagement in the World, and is comprised of items that are divided between two scales: vigor and dedication. All UWES items are scored on a 7-point Likert-type scale assessing the frequency, with which the respondent experiences each symptom (0 = "never" and 6 = "always"). Vigor subscale items include statements assessing the frequency with which an individual experiences high levels of energy at work. Dedication subscale items assess the frequency of feelings of meaningfulness or fulfillment at work. The original version of the UWES included 24 items, most of which were positively transformed versions of items from the MBI (Schaufeli & Bakker, 2003). The measure was eventually distilled down to 15 items through multiple psychometric

evaluations (Demerouti, Bakker, Janssen, et al., 2001; Demerouti, Bakker, Nachreiner, et al., 2001; Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002), and has been thoroughly validated in its shorter form. The resulting measure has demonstrated strong factor validity and internal consistency (ranging from 0.80 to 0.90 across scales), with surprising cross-national invariance and stability over time (Schaufeli & Bakker, 2003). Multiple studies have confirmed the content and construct validity of the measure. In 2006, the UWES was shortened further to nine items (UWES-9), and continued to demonstrate solid psychometrics (Schaufeli, Bakker, & Salanova, 2006).

Predictors of Burnout

Understanding occupational burnout can be vital for those concerned about both the retention of workers and the enhancement of work-related output. A number of studies have illuminated the various deleterious impacts of burnout on work performance. Maslach and Leiter (2008) offer a particularly elegant summary wherein they briefly outline the research on job performance and burnout across a number of occupations. Overall, burnout contributes to absenteeism and presenteeism from work, impaired job performance, decreased job satisfaction, intention to quit, and job loss. There is also some evidence to suggest that burnout shares common etiological pathways with depression (suggesting that depression could present as a risk factor for burnout; Iacovides, Fountoulakis, Moysidou, & Ierodiakonou, 1999), although a brief review of the existing literature on depression and burnout appears to be equivocal (cf. Leiter & Durup, 1994). Based on the findings to date, the first step in intervention for occupational burnout may be to develop a more comprehensive understanding of the panoply of factors that contribute to burnout and burnout-related occupational outcomes.

Although Maslach (1982a, 1982b) offers one of the most widely agreed-upon models of occupational burnout, there has been varied consensus on how multiple extraneous variables mediate or moderate the relationship between Maslach's three dimensions (emotional exhaustion, depersonalization, and personal accomplishment) and the ultimate outcomes of burnout. Lee and Ashworth (1996) made an early attempt to address this issue through a comprehensive meta-analysis of studies addressing burnout moderation through the lens of conservation of resources theory. Their review of 66 relevant studies confirmed the 3-factor burnout model reported by Maslach and Jackson in 1986, but further elaborated that the personal accomplishment dimension was discretely determined from both emotional exhaustion and depersonalization. When examined in the context of *Conservation of Resources Theory*, Maslach's definition of occupational burnout showed more sensitivity to work demands than available resources. This finding suggests that increased work stressors may be more determinant of ultimate burnout (using this model) than deprivation of resources, which Lee and Ashworth (1996) explain on the balance of loss and gain. They note that work stress could be perceived as a loss to beleaguered workers because of the resources (i.e., gains) they must invest or sacrifice to manage the increased demands. Because job stresses (i.e., losses) are weighed more heavily in the research than job resources (i.e., gains), increased stress will ultimately lead to burnout even in the context of increased resources. Rubino, Luksyte, Perry, and Volpone (2009) have expanded on these findings somewhat after they examined burnout in the context of stress–strain theoretical models, hypothesizing that work-related motivation may play a valuable mediating role between work-related stress and burnout.

Ballenger-Browning et al. (2011) undertook a more recent evaluation of burnout predictors in a study of military mental health providers. Using Maslach's model of burnout, the investigators sought to explore the demographic and work-related variables that contribute to burnout. With the increased burden of mental health problems associated with ongoing US military involvement in Iraq and Afghanistan, the investigators hypothesized increased risk of occupational burnout in this sample

attributable to increased workload, demographic factors, and deployment-related experiences. Interestingly, in a sample of 97 military mental health providers, they found burnout levels comparable to those of civilian providers, and lower than the normative sample used to develop the Maslach Burnout Inventory. In a subsequent review of 26 additional burnout studies, Ballenger-Browning and colleagues confirmed that levels of burnout on two of Maslach's three subscales for the military sample fell into the lowest quartile of all mental health provider studies. Part of this discrepancy may have been attributable to a heterogeneous sample comprised of case managers, social workers, psychologists, psychiatrists, psychiatry residents, and technical staff, all of whom likely face unique challenges that contribute to work stress. Indeed, the authors noted that psychiatrists were at greater risk for burnout compared to psychologists, and were significantly more likely to work long hours than the other professions. It must be noted, however, that lower military burnout rates (at least among mental health providers) may also be attributable to military-specific contextual factors that protect these treatment providers against burnout (e.g., high levels of social support, personal sense of accomplishment, etc.). After examining burnout contributing factors, the authors found that longer work hours, female gender, and more complex work tasks (i.e., working with more complicated patients) were predictive of increased burnout risk. Conversely, high levels of peer support and greater work experience were associated with lower burnout risk.

Although there have been great strides in the research to identify factors contributing to burnout risk, there has been relatively little research on positive, protective factors. Bakker, Schaufeli, Leiter, and Taris (2008) aptly note that burnout-related research has begun to shed light on a few protective factors, with the greatest amount of support generated for work engagement. Work engagement has been conceptually defined as the diametric opposite of Maslach's burnout dimensions (Maslach & Leiter, 1997). Whereas burnout is characterized by decreased energy and cynicism, work engagement encompasses increased energy and task involvement. Similarly, the lack of personal effectiveness experienced by a burned out worker is replaced by increased efficacy associated with high work engagement. Some suggest that work engagement is cultivated through a worker's identification with his or her work and ability to focus energy onto work tasks (i.e., attention and concentration; Bakker et al., 2008; Kahn, 1990; Rothbard, 2001), and there is ample evidence to suggest that enhancing job resources (colleagues, positive feedback, autonomy, etc.) results in improved work engagement (Bakker et al., 2008).

The exact relationship between burnout and positive constructs like work engagement has yet to be fully defined, although Bakker and colleagues explore some theories suggesting that work engagement is completely separate from burnout, but with a strongly negative reciprocal relationship. Thus, workers with little work engagement are at increased risk for burnout, and vice versa. Gonzalez-Roma, Schaufeli, Bakker, and Lloret (2006) used a nonparametric Mokken scaling method to definitively test the relationship between burnout (exhaustion and cynicism) and work engagement (vigor and dedication). Their analysis revealed that the two constructs do interact in an antipodal manner, and are representative of opposite ends of bipolar dimensions describing energy and identification with work. It has been argued, however, that diametric opposition between burnout and work engagement does not necessarily mean that engagement can be inferred by a lack of burnout (i.e., low scores on a burnout scale do not indicate high levels of work engagement; Schaufeli & Bakker, 2003). So, both it may be necessary to thoroughly assess both burnout and work engagement to truly understand an individual's adjustment to work.

Maslach and Leiter (2008) examined a large sample ($n_{T1} = 992$, $n_{T2} = 812$) of North American workers in order to identify early predictors of burnout and work engagement. They hypothesized that burnout characteristics would be consistent over time (through mutual maintenance of exhaustion and cynicism), that this consistency in burnout traits would result in less change in burnout and engagement over time (compared to those with less consistency—early warning burnout patterns—who would

demonstrate more change), and that incongruities in various domains of worklife (workload, control, fairness, reward, community, and values) would contribute to burnout over time. Maslach and Leiter determined that it was possible to identify individuals at risk for later burnout, with incongruities in worklife fairness and inconsistent (i.e., unstable) burnout characteristics serving as the most telling early risk factors. However, the authors were quick to caution that the particular relevance of fairness as a risk factor in this study may have been attributable to particular problems of fairness within the organization they examined. As a result, other worklife domains may account for greater variance in organizations where those domains are more problematic. Based on these findings, and Maslach and Leiter's expectations that organizational problems are likely to be clustered within suborganizations (units, divisions, etc.), the authors recommend addressing widespread burnout using organizational (rather than individually tailored) interventions, including ongoing assessment of burnout risk and organizational intervention targeting a worklife domain "tipping point" toward burnout. Interestingly, the investigators found that worklife domain incongruities do not seem to contribute to any change in work engagement. In other words, changes in worklife predict burnout, but not work engagement. Maslach and Leiter concluded that work engagement may actually be a normative response to work, whereas occupational burnout represents a departure from normal.

Burnout and Special Populations

Several populations have come to the forefront when addressing burnout concerns, resulting in a specialized body of research examining the nature and outcomes of burnout in special occupations with high burnout risk. These professions tend to include jobs in which workers are expected to work long hours working for and with other people (i.e., service occupations). These service-oriented professions include mental health, health care, teachers, and law enforcement (McVicar, 2003).

Burnout and Mental Health

Research has found that mental health providers represent a population of workers with the highest risk of burnout (Snibbe, Radcliffe, Weisberger, Richards, & Kelly, 1989; Thomsen, Soares, Nolan, Dallender, & Arnetz, 1999). This is likely due to the intensive nature and degree of involvement necessary to provide successful mental health treatment. Burnout among mental health providers can lead to decreased effectiveness of the providers, leading ultimately to poorer treatment outcomes and prolonged suffering of their patients (Priebe et al., 2004). A qualitative study of mental health professionals (Reid, Johnson, & Morant, 1999) indicated that administrative demands, lack of resources, work overload, relapsing patients, and responsibility for patients were the top sources of stress for mental health providers. These stressors, and severe distress in the workplace, have been linked with staff absenteeism, poor staff retention, and reduced job performance (AlbuAlRub & Al-Zaru, 2008).

Studies have also shown that psychiatry, in particular, tends to be a high burnout profession (Kumar, 2007). This is likely due to external factors (such as work environment), internal factors (such as personality and appraisal styles), and mediating factors (such as social support). Emotional exhaustion is the most common burnout symptom reported by psychiatrists (Prosser et al., 1996). Although most psychiatrists work fewer hours than other physicians or surgeons, they report more depression and burnout related to workload (Deary, Agius, & Sadler, 1996). This may be due to psychiatrists dealing with extremely distressed and ill individuals on a daily basis, which may put them at risk for inheriting some of their patients' emotional distress (a phenomenon commonly referred to as "emotional contagion"). Burnout is a frequent outcome of the chronic exposure to emotional and interpersonal stressors

that psychiatrists confront on a daily basis (Benbow, 1998; FarberFarber, 1983). Protective factors for this profession, such as lifestyle factors and focusing on one's nonprofessional life, may be important to discourage burnout (Kumar, 2007).

A segment of providers in the mental health field face the unique challenge of working with patients and being active duty military. This population may be doubly at risk for burnout, dealing with both the stress of working with patients and the ever-increasing demands of serving in the military during wartime. Mental health providers in the military not only treat patients but also must meet the daily demands of military life (which include deployments and frequent change of duty stations). All this must be accomplished while the active duty mental health force decreases due to individuals getting out of the military leaving an undermanned workforce (Pueschel, 2011). In recent years, due to Operation Enduring Freedom/Operation Iraqi Freedom, an increasing number of military members are suffering from mental health disorders, with a higher prevalence of the disorders being traumatic stress disorders (Ballenger-Browning et al., 2011). Furthermore, military mental health providers themselves may also be exposed to combat trauma during deployments. These unique stressors of working with trauma patients and amplified workload due to the increases in mental health problems in the military population along with a decreasing workforce, is a recipe for burnout. While research (Ballenger-Balling et al., 2011) has found that providers in the military score significantly better on two of three of the subscales on the MBI when compared to civilian mental health providers, indicating lower levels of burnout, there are still areas of concern. In the military, being female, working longer hours, treating more patients with personality disorders, being a psychiatrist, and treating more patients per week were indicators of higher rates of burnout. Alternately, employment as a psychologist, having a greater number of patients with traumatic brain injury (TBI), having social contacts at work, and more clinical experience were predictors of lower burnout scores on the MBI. For a thorough list of recommendations for the prevention of burnout among military mental health providers before, after, and during deployment please see Linnerooth et al. (2011).

Burnout and Health-care Workers

Individuals who work in the health-care services (medical students, physicians, and nurses) often experience workplace stressors that have the potential to lead to burnout. Nurses report inadequate staffing, problems with coworkers, emotional needs of patients, shift work, and lack of reward and social support as common sources of stress (AlbuAlRub & Al-Zaru, 2008; McVicar, 2003). Dyrbye et al. (2010) found that medical students with burnout were more likely to engage in cheating or dishonest clinical behaviors. Medical students suffering from burnout were also less likely to hold altruistic views regarding physicians' responsibility toward society. This suggests that burnout may alter physicians' views on their responsibility to promote public health and advocate for patients. Agius, Blenkin, Deary, Zealley, and Wood (1996) found that burned out medical professionals experience higher rates of suicide, early retirement, increased substance use, and marital problems. Peterson (2008) also found that health-care workers suffering from burnout were more likely to experience sleep problems.

Burnout and Teachers

In the USA, up to 25% of beginning teachers leave the teaching field before their third year, and almost 40% leave the profession within the first 5 years of teaching (Milner & Woolfolk Hoy, 2003). Teachers routinely face stressors related to improving standardized test scores, peer violence, behavior

problems, uninvolved parents, work overload, poor career structure, and low salaries (Grayson & Alvarez, 2007; Schonfeld, 2001). McGuire (1979) first warned that public school teachers were experiencing a significant degree of burnout. Teachers experience emotional exhaustion when they are unable to physically or emotionally provide for students due to extreme fatigue and stress (Maslach et al., 1996). This exhaustion develops over time as one's emotional resources are drained. Teachers experience depersonalization as cynical attitudes toward students, parents, coworkers, and the workplace. Diminished feelings of personal accomplishment are found as teachers begin to feel they are no longer adding to students' development (Maslach et al., 1996). These symptoms of burnout lead to low self-esteem, decreased self-confidence, and depression (Schonfeld, 2001). Teachers who feel ineffective report low job satisfaction, along with resentment, frustration, boredom, irritability, anger, and hopelessness (Blasé, 1982). This impacts the school system due to increased teacher absenteeism, high turnover, mental health and medical claims, deteriorating performance, and early retirement (Burke, Greenglass, & Schwarzer, 1996; Leithwood, Menzies, Jantzi, & Leithwood, 1999). These teachers may also have reduced tolerance for classroom behavior problems (Grayson & Alvarez, 2007), and less flexibility and acceptance to various student needs (Capel, 1991).

The risk of burnout in teachers is increased when teachers have unmet or unrealistic goals and lack professional accomplishment (Evers, Tomic, & Brouwers, 2004). Some research has found teachers between the ages of 20 and 30 years old experience higher levels of burnout (Friedman & Farber, 1992). However, findings regarding age as a predictor of burnout have not been consistent across the literature. Some studies found no evidence for ages as a predictor of teacher burnout (Zabel & Zabel, 2001). Research has also found mixed results in terms of gender and teacher burnout (Chang, 2009).

Burnout and Law Enforcement

Those serving in law enforcement often face stressful situations daily. Negative aspects of the job include lack of respect, excessive paperwork, confrontational and negative public contact, shift work, threats of violence, and sometimes boredom (Greller & Parsons, 1988; Jermier, Gaines, & McIntosh, 1989; Stotland & Pendleton, 1989). Work-setting characteristics may also increase stress among law enforcement. These include low quality supervision, unmet expectations, and constraints within the organizational environment (Burke, 1994). Due to an accumulation of these stressors, burnout may occur. Police officers reporting higher levels of burnout were found to be more likely to display anger, spend time away from family, and have poor marriages. Burnout can lead to deteriorating work performance, absenteeism, low-morale, emotional problems, and physical conditions, such as headaches and ulcers among law enforcement (Kroes, 1976). Research has also shown that burnout influences how police officers interact with the public, as well as their attitudes toward violence (Kop, Euweman, & Schaufeli, 1999).

Engagement, as well as burnout, has been examined with police officers. Research has found that job resources, in terms of social support from supervisors and coworkers, were related to engagement (Richardson, Burke, & Martinussen, 2006). Cynicism was found to be associated with increased health complaints and reduced commitment and efficacy. Engagement in law enforcement was found to be associated with fewer health complaints and increased commitment and efficacy.

Burnout Prevention

The available research has not shown efficacy in treating burnout once it has set in (Kumar, 2007). Therefore, it is best to take a preventative approach to dealing with burnout. Prevention research has focused on prevention techniques focused on the individual (person-centered approaches) and at the

organizational level (situation-centered approaches). Maslach and Goldberg (1998) recommend three steps prior to developing a burnout prevention model. First, one should have a clear definition of the construct (burnout) that is being treated. Secondly, one must examine the intended outcome (improved physical health or job performance). Lastly, one must have a method to assess burnout so that it can be determined whether the intervention had the intended effect (decreasing burnout). Some person-centered approaches focus on changing the person's relationship to the job, and others focus on increasing an individual's coping skills so that job stressors are better managed (Maslach & Goldberg, 1998). More research has been conducted in this area of decreasing burnout. This is likely due to the fact that it is often cheaper for an individual to make lifestyle changes or increase coping skills rather than making global organizational changes. However, it can be argued that an individual also has more control in these areas to make changes on the individual level rather than raging a battle with their employer. It is likely that an individual will see noticeable changes sooner when using person-centered approaches, increasing their sense of self-efficacy and control.

Person-Centered Approaches

Engaging in relaxing activities may help to prevent burnout and offset the stress response (Maslach & Goldberg, 1998). Relaxing activities can include activities that require little effort, such as deep breathing, mindfulness training, or meditation. Relaxing activities can also be more involved, such as taking a vacation. A vacation allows employees to take a break from the daily stressors associated to work that can lead to burnout. Lounsbury and Hoopes (1986) found that satisfaction with vacation was related to improved satisfaction with life and work. Etzion, Eden, and Lapidot (1998) found that employees who took vacations were less likely to suffer from burnout when compared to their coworkers who did not take vacations. However, the employee must perceive his/her vacation as satisfying and, preferably, not have any contact from work (i.e., phone calls, e-mail, etc.) to fully benefit from the respite experience.

An individual may decide to change his/her work pattern (Maslach & Goldberg, 1998). A relatively easy solution to decrease burnout is to decrease the number of hours that one works. However, this is not always as simple as it seems. Many individuals are not financially secure enough to reduce their work hours. In some situations, an employer may not allow a decrease in employee's work hours. In these situations, it may be helpful to take more breaks or avoid working overtime. Research has suggested that it is not necessarily the amount of work that causes burnout, but an imbalance between work and the rest of one's life (Grosch & Olsen, 1995; Riordan & Saltzer, 1992). Therefore, improving the areas of life outside of work may prove beneficial in decreasing overall burnout.

In addition, an employee may decide to work to improve her/his coping skills (Maslach & Goldberg, 1998). The goal is not to remove the work stressors, but to change how the employee responds to the work stressors. This often includes the use of cognitive-restructuring. Cognitive-restructuring allows an individual to look at situations differently, to monitor their own thoughts regarding their job, and reduce work expectations. It also allows an employee to take a "step back" and evaluate others behaviors before becoming reactive to the situation. More behaviorally focused coping skills include the use of time management techniques, improving communication skills, learning problem-solving techniques, and increasing social support.

Social support can also help to prevent burnout (Maslach & Goldberg, 1998). It is very easy to isolate one's self when experiencing job stress. Accessing support from friends, family, professionals, and coworkers allows for a sounding board in difficult situations. It is not uncommon for an individual to engage in psychotherapy due to work stressors. A professional can serve as a safe confidant while examining distorted thoughts that may discourage healthy coping. Increased social support and social

activities can also serve as a distractor when experiencing stressful times at work. Physical exercise may help to offset stress and allow an individual to blow off steam while encouraging a healthy lifestyle. Consistent physical exercise encourages better sleep, decreases muscle tension, and improves mood. If one engages in physical exercise with someone else, it also increases social support.

Situation-Centered Approaches

There is much less research available when examining situation-centered approaches to the prevention of burnout. Most that is available focuses on enhancing the job experience (Maslach & Goldberg, 1998). Some strategies focus on increasing employees' sense of control and self-efficacy by allowing them to have a voice in the organizational decision-making. Another strategy involves training employees in other areas of their job to allow for greater personal development. Organizations may be able to increase an individual's self-esteem by openly praising workers who deserve it. In turn, increasing an individual's positive feelings toward work may be helpful (Grayson & Alvarez, 2007). Organizations that work primarily with people may want to initiate training on the prevention of burnout, provide occupational orientation to novice providers, and find ways for older members of the profession to mentor newer members so that socialization to the profession can occur (Gustavsson, Lennart, & Rudman, 2010). These strategies may decrease the likelihood of burnout amongst employees.

Organizations may also focus on encouraging employees' feelings of engagement regarding work. Sirota, Mischkin, and Meltzer (2005) recommend equity or fair treatment within organizations. Fair treatment, which includes justice at work, job security, fair pay and respect, results in engaged employees. Schaufeli and Salanova (2006) also make recommendations to encourage engagement at the organizational level among employees. These include assessing and evaluating employees to ensure people are placed in the most appropriate job for their skillset. They also include finding ways to decrease work stressors while enhancing job resources available to employees. It is recommended that leadership set a positive socioemotional climate and provide training and career development to build employee self-efficacy.

Conclusions and Directions for Future Research

Although great progress has been made in burnout research, some have observed that our understanding of burnout is still incomplete and in need of continued investigation (Maslach & Schaufeli, 1993). Because of its symptomatic similarity to other conditions, like depression and anxiety, additional work is required to examine how burnout can/should be distinguished from other conditions. Additionally, more may need to be done to illuminate how burnout relates to similar concepts like job stress (cf. Lee & Ashworth, 1996; Maslach, 2003; Maslach & Schaufeli, 1993). Ultimately, one can reasonably conclude that occupational burnout is a complex phenomenon, impacted by multiple factors contributing to the relationship between a worker and his or her work environment. Although relatively new, this concept has garnered increased attention throughout the years, and will continue to grow in importance as we unlock more knowledge about the impact of burnout on workers and their work output. Everyone reading this chapter is encouraged to contribute to this endeavor by critically evaluating the possible role of burnout mechanisms in their own interactions with patients. These hypothesized mechanisms can be evaluated at micro (single-subject design) and macro (comprehensive randomized trials) levels, the results of which can help us to continue to recognize not only how burnout occurs but also how it can be mitigated (or even replaced with work engagement).

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