



Research Article

Chronic job burnout and daily functioning: A theoretical analysis

Arnold B. Bakker^{a,b,*}, Patrícia L. Costa^c^a Erasmus University Rotterdam, Department of Work & Organizational Psychology, Woudestein, Room T13-47, P.O. Box 1738, 3000 DR Rotterdam, The Netherlands^b Lingnan University, Department of Applied Psychology, Hong Kong, China^c ISCTE – University Institute of Lisbon, Office 2W8 (Building I), Av.^o das Forças Armadas, 1649-026 Lisboa, Portugal

ARTICLE INFO

Article history:

Received 31 January 2014

Received in revised form 10 April 2014

Accepted 19 April 2014

Keywords:

Burnout
Diary research
Employee engagement
Interventions
Job crafting
Self-undermining

ABSTRACT

In this article, we discuss the individual employee's role in the development of his/her job burnout. We review the antecedents and consequences of burnout, and propose a model with chronic burnout as a moderator of daily functioning in the workplace. Specifically, we argue that chronic burnout strengthens the loss cycle of daily job demands, daily exhaustion, and daily self-undermining. Additionally, we argue that chronic burnout weakens the gain cycle of daily job resources, daily work engagement, and daily job crafting. We conclude that employees with high levels of burnout need help in structurally changing their working conditions and health status.

© 2014 The Authors. Published by Elsevier GmbH. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/3.0/>).

1. Introduction

Burnout is arguably one of the most popular research topics in occupational health psychology, and there is a good reason for this. Research has convincingly shown that employees who are at risk of burnout (i.e., who are chronically exhausted and hold a negative, cynical attitude toward work) show impaired job performance and may face serious health problems over the course of time (Bakker, Demerouti, & Sanz-Vergel, 2014). One obvious problem is that once employees experience high levels of burnout, they often continue to be in trouble. Indeed, longitudinal research suggests that burnout can be rather stable, over periods of five, ten, or even fifteen years (Bakker, Schaufeli, Sixma, Bosveld, & Van Dierendonck, 2000; Hakanen, Bakker, & Jokisaari, 2011; Schaufeli, Maassen, Bakker, & Sixma, 2011). How can we explain that burnout persists for so long? We think that burnout has not been adequately explained because most studies do not regard burnout as an ongoing process that unfolds over time (see also, Ten Brummelhuis, Ter Hoeven, Bakker, & Peper, 2011).

Previous burnout research has suggested that the syndrome has structural causes in the work environment, particularly high

job demands and low job resources (Alarcon, 2011; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Lee & Ashforth, 1996). This research also indicates that individual factors such as neuroticism and perfectionism play a significant role in the development of burnout, because these characteristics predispose employees to cope in the wrong way with their high job demands (see also, Swider & Zimmerman, 2010). Despite all this knowledge, we still know little about the role the individual employee plays in the daily process that may lead to burnout. Do employees only react passively to the work environment or do they actively influence it?

The central aim of this article is to analyze the burnout phenomenon from the perspective of the burned-out worker. We want to capture the process leading to burnout, and explain why burnout persists for such a long time. How do those with high levels of burnout function in the workplace on a day-to-day basis? Does the problem progress from bad to worse? This paper aims to contribute to the literature in two important ways. First, we challenge the rather static view of burnout that dominates the literature, suggesting that burnout is a simple response to the working environment. We present a more dynamic model that elucidates how burnout progresses over time. Second, we emphasize the role of the individual employee in the burnout process. What can employees do themselves to break through the loss spiral of burnout? We introduce the concepts of self-undermining and job crafting as behaviors that may help to understand how burnout often persists and leads to more job demands and less job resources over the course of time.

* Corresponding author at: Erasmus University Rotterdam, Department of Work & Organizational Psychology, Woudestein, Room T13-47, P.O. Box 1738, 3000 DR Rotterdam, The Netherlands. Tel.: +31 10 408 8853.

E-mail addresses: bakker@fsw.eur.nl (A.B. Bakker), patricia.costa@iscte.pt (P.L. Costa).

2. Burnout

Burnout is a syndrome characterized by chronic exhaustion, cynicism, and a lack of personal accomplishment. It is usually defined as “. . . a state of exhaustion in which one is cynical about the value of one’s occupation and doubtful of one’s capacity to perform” (Maslach, Jackson, & Leiter, 1996, p. 20). Emotional exhaustion is the central strain dimension of burnout, described as feelings of being emotionally drained by one’s work. Cynicism is a negative or excessively detached response to the work itself and/or to the individuals with whom employees’ interact while performing their job. Finally, lack of personal accomplishment refers to a decline in one’s feelings of competence and of successful achievement at work (Maslach, Schaufeli, & Leiter, 2001; Schaufeli, Leiter, & Maslach, 2009). Burned-out individuals simultaneously experience high levels of chronic fatigue, and distance themselves emotionally and cognitively from their work activities.

Employees with higher levels of burnout are more likely to report a range of psychological and physical health problems, including anxiety, depression, sleep disturbance, memory impairment, and neck pain (Peterson et al., 2008). In a study among a nationally representative sample of more than 3000 Finnish workers, Ahola (2007) reported an increased prevalence of depressive and anxiety disorders and of alcohol dependence among burned-out employees. Similarly, in their three-wave, seven-year prospective study of 2000 dentists, Hakanen and Schaufeli (2012) found a positive relationship between burnout on the one hand and depressive symptoms and life dissatisfaction on the other. In what physical health is concerned, Kim, Ji, and Kao (2011) showed that social workers with higher initial levels of burnout reported more physical health complaints over the course of their three-year study, including sleep disturbances, headaches, respiratory infections, and gastrointestinal infections. Higher levels of burnout led to a faster rate of deterioration in physical health. The burnout syndrome has also been found to be an independent risk factor for infections (e.g., common cold; Mohren et al., 2003), and type 2 diabetes (Melamed, Shirom, Toker, & Shapira, 2006). Moreover, burnout is a risk factor for cardiovascular diseases (Ahola, 2007). A ten-year prospective study by Ahola, Väänänen, Koskinen, Kouvonon, and Shirom (2010) concluded, “burnout, especially work-related exhaustion, may be a risk for overall survival” (p. 1).

Consequently, burned-out employees are likely to display one or more withdrawal behaviors (Hanisch, 1995) such as lateness, absence, or turnover (Maslach et al., 2001). Clinically burned-out employees may get justified absence leaves from work. However, other burned-out employees remain at work, which leads to a form of presenteeism. Presenteeism occurs when individuals go to work when they should instead be off sick, either because they are ill or because they are no longer effective (Cooper, 1996). Individual performance is compromised because burned-out workers need to invest extra time and effort in performing their job. Additionally, collective performance may suffer because healthy employees spend time in helping their sick colleagues, at risk of also damaging their own health (Roe, 2003). Moreover, presenteeism itself a risk factor for burnout. Demerouti, Le Blanc, Bakker, Schaufeli and Hox (2009), in a three-wave study among staff nurses working in general hospitals, found reciprocal relationships between burnout, job demands, and presenteeism. Burnout (exhaustion and depersonalization) predicted more job demands and presenteeism; presenteeism, in turn, predicted higher levels of burnout. In conclusion, employees who are burned-out by their work, experience more psychological and physical health problems, and this influences their behavior at work in a significant way.

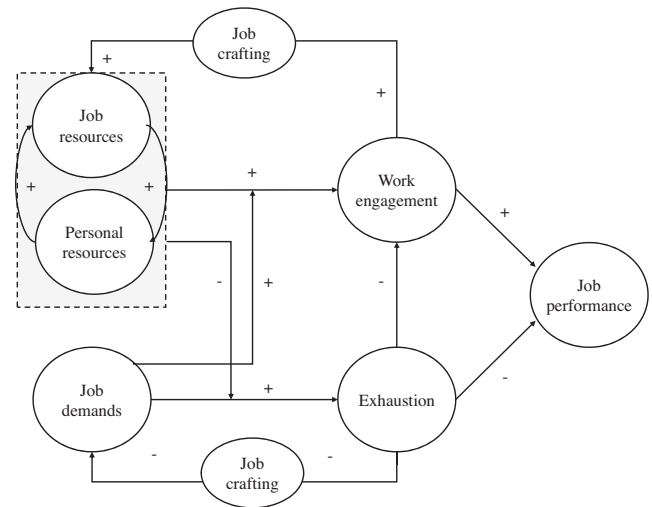


Fig. 1. The Job Demands-Resources model (Bakker & Demerouti, 2014).

2.1. Causes of burnout

The causes of burnout are generally divided in two categories: situational factors and individual factors (Bakker et al., 2014). Situational factors include job demands and (lack of) job resources. Job demands are aspects of the job that require sustained effort (Demerouti et al., 2001). Therefore, job demands are associated with physiological and psychological costs, such as an increased heart rate and fatigue. Such symptoms may set the ground for the experience of burnout, because job demands lead employees to feel exhausted and to psychologically distance themselves from work (Bakker et al., 2000). Role ambiguity, role conflict, role stress, stressful events, workload, and work pressure are among the most important job demands that cause burnout (Alarcon, 2011; Lee & Ashforth, 1996).

Job resources are the physical, psychological, social, or organizational aspects of the job that facilitate the achievement of work goals, reduce job demands and its costs, or stimulate personal growth through meaningful work (Bakker & Demerouti, 2007). The relationship between job resources and burnout is consistently negative, where lower levels of job resources are associated with higher levels of burnout, especially in what cynicism is concerned (Demerouti et al., 2001). Moreover, Job Demands-Resources theory (Bakker & Demerouti, 2007, 2014; Demerouti & Bakker, 2011) proposes that job resources play a buffering role in the relationship between job demands and burnout (see Fig. 1). Bakker, Demerouti, and Euwema (2005) found that when employees experienced autonomy, received feedback, had social support, or had a high-quality relationship with their supervisor, being subject to work overload, emotional demands, physical demands, and work-home interference did not result in high levels of burnout. Thus, burnout is more likely to develop when high job demands are combined with low job resources.

In what individual factors are concerned, both socioeconomic status and personality variables have been analyzed as creating a predisposition to suffer from burnout symptoms. Hakanen et al.’s (2011) cohort study among Finnish employees found that socioeconomic status and cognitive ability in adolescence were associated with job burnout 35 years later, through adult education and skill variety. Personality influences the way people perceive their work environment, and therefore how they deal with job demands and resources. Strain may arise, for example, when the work environment is not aligned with individual personality, leading to frustration of individual needs. For example, when an introverted technician becomes a leader, he will need to enact behaviors he

is not used to – for example give presentations for larger groups of co-workers. This misfit between personality and job demands may result in serious stress reactions, particularly when employees are often exposed to demands that do not fit with their skills and preferences. Alarcon, Eschleman, and Bowling (2009) found that four of the Big Five factors of personality (Costa & McCrae, 1985) – emotional stability, extraversion, conscientiousness, and agreeableness – were consistently negatively related to each of the three dimensions of burnout. Further, individuals high in self-efficacy, optimism, and self-esteem were better able to deal with job demands – most likely because they believe they have control over their work environment, and, therefore, are more likely to proactively solve problems and seek resources when facing job demands.

It should be noted that these situational and individual factors are relatively stable and likely to persist over extended periods of time. This means that if the work environment is suboptimal, or when employees have a personality that does not fit with the work situation, eventually, chronic job burnout is a possible risk. However, research suggests that levels of well-being and job performance may also fluctuate within shorter time periods, namely from week to week, and even from day to day (Xanthopoulos, Bakker, & Ilies, 2012). How do such short-term fluctuations in well-being relate to chronic levels of burnout? Are employees with high levels of chronic burnout tired during every day? What are the possible causes of ups and downs in daily well-being? Can burned-out individuals change their own work situation? We will answer these questions below. However, we will first examine the link between burnout and job performance, because this literature provides important information about the work behavior of employees high in burnout.

2.2. Job performance

Research has indicated that burnout is negatively related to performance. In a large meta-analytic study including no less than 115 different studies, Swider and Zimmerman (2010) found the three dimensions of job burnout had multiple correlations of .23 with absenteeism, .33 with turnover, and .36 with job performance. A previous meta-analysis by Taris (2006) investigated the relationship between burnout and other-ratings of performance (e.g., supervisor reports). He identified sixteen studies dealing with the burnout–performance relationship, showing a wide variety of approaches that are used to study burnout and objective performance. The meta-analytical correlations between exhaustion and in-role behavior (based on five studies), organizational citizenship behavior (five studies), and customer satisfaction (two studies) were $-.22$, $-.19$, and $-.55$, respectively. The evidence for the relationships between depersonalization, personal accomplishment, and performance was inconclusive.

One possible explanation for the negative link between burnout and performance is that exhausted employees lack the concentration needed to perform well, and therefore make more mistakes. Additionally, the negative emotions that are characteristic of burnout narrow the breadth of thought processing (Fredrickson, 2001), diminish the focus on new or global information (Derryberry & Tucker, 1994), and impair the quality of decision-making. Individuals who experience negative emotional states and who are psychologically detached from work also demonstrate fewer approach behaviors toward others (Cacioppo, Gardner, & Berntson, 1999), and more counterproductive work behaviors such as stealing, withholding effort and information, and taking longer breaks (Penney & Spector, 2008). Furthermore, burned-out employees are less willing to help others (Swider & Zimmerman, 2010), and less likely to receive help from others, which may result in productivity losses (Bakker et al., 2014).

Burnout is not only negatively related to performance, but also positively related to sickness absenteeism. Schaufeli, Bakker, and Van Rhenen (2009) showed that burnout predicted future absence duration but not absence frequency over the course of one year. Toppinen-Tanner, Ojajarvi, Väänänen, Kalimo, and Jäppinen (2005) found that burnout increased the risk of medically certified absences episodes that were longer than three days. Similarly, Borritz, Rugulies, Christensen, Villadsen, and Kristensen (2006) found that an increase of burnout was positively related to an increase in sickness absence days per year. Peterson et al. (2011) found that the exhaustion dimension of burnout predicted long-term sickness (90 days or more) at any occasion during the 44 months of follow-up in a study among more than 6000 employees working in a County Council area in Sweden.

One problem that is evident from the literature – and that follows logically from the observation that burnout coincides with impaired job performance – is that burnout predicts increased job demands overtime (Bakker & Demerouti, 2014). For example, Demerouti, Bakker, and Bulters (2004) performed a longitudinal study with a sample of 335 employees and found that work pressure and exhaustion had causal and reversed causal relationships over time. Hence, not only did work pressure predict exhaustion; feeling exhausted also predicted subsequent levels of work pressure in a reciprocal relationship (see also, Ten Brummelhuis et al., 2011). The reason for this reciprocal relationship is most likely that exhausted employees need more time to finish their tasks, make more mistakes, and are less able to mobilize their resources. This means that job demands accumulate over time – causing even higher levels of burnout.

3. Chronic burnout and daily functioning

Our review so far indicates that employees with high levels of burnout (exhaustion, cynicism, and reduced personal accomplishment) are most likely to be found in working environments with high job demands and low job resources. Over the course of time, employees' experience of fatigue may transform into chronic exhaustion and health problems when the demands of their job become overwhelming, and when job resources are consistently lacking. Employees with burnout also do not manage to function at the expected performance level. How does the experience of chronic burnout affect daily experiences at work, and how does it affect employees' work behavior? Additionally, what is the impact of daily work activities on the well-being of burned-out employees?

Unfortunately and paradoxically, most research on the concept of burnout has studied employees with only mild signs of burnout, and ignored the group of employees that is at risk for burnout or that progressed into clinical burnout. Some descriptive studies investigated burnout among employees who received professional treatment (Schaufeli, Bakker, Hoogduin, Schaap, & Kladler, 2001; Sonnenschein, Sorbi, Van Doornen, Schaufeli, & Maas, 2007), but the vast majority of studies have treated the focal variable (burnout) as a continuous variable. Such a strategy is not unusual in the field of applied psychology, and this approach has resulted in a wealth of knowledge regarding the predictors of burnout. However, the analytical problem is that burnout may particularly have an adverse impact on functioning at work when employees experience high levels of exhaustion and cynicism. Indeed, recent research suggests that employees with only mild symptoms of burnout use a range of strategies (e.g., selection, optimization, compensation; Demerouti, Bakker, & Leiter, 2014) to keep their job performance at acceptable levels. However, what happens once employees have reached high levels of burnout as a consequence of prolonged exposure to high job demands and low job resources?

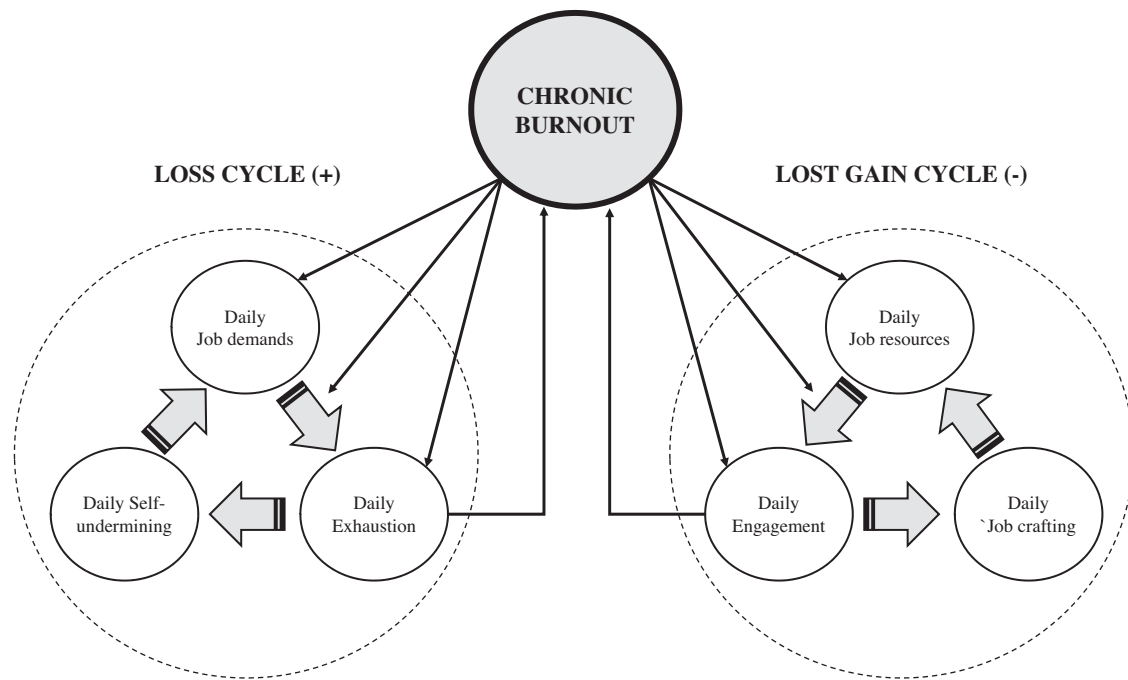


Fig. 2. Chronic burnout: a loss cycle of daily job demands and a lost gain cycle of daily job resources.

We believe it is time that our field moves forward and investigates how people with higher (vs. lower) levels of (chronic) burnout – but who are still at work – function on a daily basis. We use the two central processes in the Job Demands–Resources (JD–R) model (Bakker & Demerouti, 2014; Demerouti et al., 2001; see Fig. 1) to explain how employees with high levels of burnout may get trapped in a loss cycle of high daily job demands and high daily exhaustion, and do not manage to mobilize their daily job resources. However, whereas previous research with the JD–R model has generally used either a between-person or a within-person approach, we distinguish between two levels of analysis, namely the level of the person (chronic burnout level), and the day level (daily functioning; see Fig. 2).

3.1. Daily job demands and self-undermining

An important starting point is to acknowledge that individuals with high levels of burnout cope differently with their daily job demands than those low in burnout, which may exacerbate their problems. More specifically, as can be seen in Fig. 2, we propose that daily job demands translate into daily exhaustion (cf. Simbula, 2010), particularly for high-burnout employees. The reason for this is that the low level of daily energy that is apparent in employees with chronic burnout (Sonnenschein et al., 2007) makes them unfit to deal adequately with the daily job demands. These daily job demands, for example, complex problems that must be solved, or a demanding customer that needs a lot of attention, will then cost additional effort, resulting in a high level of daily exhaustion. If individuals high in burnout are often confronted with high daily job demands, they may end up in a loss cycle (Hobfoll, 2002) in which most energy resources are depleted and employees become sick.

In his conservation of resources theory, Hobfoll (2002) has referred to “loss spirals” and suggested that people who lack resources are susceptible to losing even more resources. According to Hobfoll’s conservation of resources theory, individuals strive to obtain things they value. These are called “resources” and include objects, conditions, personal characteristics and energies. Resources are entities that “...either are centrally valued in their

own right, or act as means to obtain centrally valued ends” (Hobfoll, 2002, p. 307). People strive to protect themselves from resource loss, which makes loss more salient than gain. However, resources are related to each other in a “web like” nature, which further suggests that resource loss and gain occurs in spirals. Loss spirals will follow initial losses, with each loss resulting in depletion of resources for confronting the next threat or loss (Hobfoll, 2002). Besides, resource loss also prevents the switching of the situation into gain cycles. Burnout is a classic case, whereby the employees’ personal and job resources are being progressively eroded leading to increased energy depletion and further diminishment of resources. Demerouti et al. (2004) found evidence for such a loss spiral in which work pressure evoked work–family conflict and exhaustion. These feelings of chronic fatigue, consequently, gave rise to more work pressure and work–family conflict over time.

Indeed, there is considerable evidence suggesting that employees at risk for burnout create more job demands over time. We have briefly mentioned some longitudinal studies that provided evidence for this contention (Demerouti et al., 2004; Schaufeli, Bakker, et al., 2009; Ten Brummelhuis et al., 2011), but these studies did not explain how and why burnout is positively related to job demands over time. As can be seen in Fig. 2, we propose that employees with higher levels of daily exhaustion show self-undermining behavior. Our concept of self-undermining is based on – but different from – the phenomenon of self-handicapping. Self-handicapping is defined as a self-defending maneuver referring to obstacles created, or claimed, by the individual in anticipation of failing performance (Jones & Berglas, 1978). In the present theoretical analysis, we use the term ‘self-undermining’ for behavior that creates obstacles that may undermine performance. We argue that employees with higher levels of daily exhaustion will make more mistakes, which then need to be corrected again, adding to the already high job demands. Thus, we expand JD–R theory (see Fig. 1), by arguing that exhausted employees show self-undermining behaviors, on a daily basis. Additionally, we argue that chronically burned-out employees are less able to manage their own emotions, and more likely to encounter conflicts at work. These self-undermining daily behaviors all contribute to higher daily job demands (see Fig. 2).

Research has provided ample evidence for self-undermining as a result of exhaustion. For example, [Van der Linden, Keijsers, Eling, and Van Schaijk \(2005\)](#) compared three groups: (a) a group of burned-out individuals who stopped working due to their symptoms and sought professional treatment; (b) teachers at a vocational training institute who reported high levels of burnout symptoms but continued to work; and (c) teachers from the same institute who reported no burnout symptoms. The results showed that burnout was positively related to the number of cognitive failures in daily life, and to inhibition errors and performance variability in attentional tasks carried out in the laboratory. Thus, burned-out individuals made more mistakes. Similarly, in their longitudinal field study among financial consultants, [Ten Brummelhuis et al. \(2011\)](#) found a loss cycle of burnout through a decrease in job resources and an increase in job demands. Resource loss was most likely for burned-out consultants who were low in intrinsic motivation.

Further, [Sonnenschein et al. \(2007\)](#) asked 60 clinically burned-out participants and 40 healthy controls to record symptoms with an electronic diary for two weeks at random times per day. Their findings indicated that clinically burned-out individuals did not recover as much through sleep as healthy individuals did, because burned-out individuals experienced all kinds of sleep problems, particularly trouble falling asleep and nonrefreshing sleep. This is one reason why burned-out individuals show consistent high levels of daily exhaustion. Thus, burned-out individuals seem to undermine their own daily functioning because they do not sleep very well.

In another diary study, [Van Gelderen, Konijn, and Bakker \(2014\)](#) showed that police officers with high levels of strain at the start of their work shift were more likely to use suboptimal emotional regulation strategies (i.e., 'surface acting' instead of 'deep acting') during the working day in interactions with civilians/suspects. Daily surface acting, in turn, resulted in impaired performance and higher daily strain at the end of the work shift. Police officers who fake their emotions during interactions with civilians are perceived as less authentic by these civilians, and are therefore more likely to exacerbate the problems they aim to solve ([Van Gelderen, Konijn, & Bakker, 2011](#)). Hence, this is one more example where higher levels of strain seem to evoke self-undermining behaviors.

It should be noted that job demands might also be affected by employees' perceptions of these demands ([Zapf, Dormann, & Frese, 1996](#)). Just like the tendency of depressed people to assess their environment more negatively and thus contributing to a more negative climate ([Demerouti et al., 2004](#)), burned-out employees may perceive relatively high job demands and complain more often about their workload creating a negative work climate ([González-Morales, Peiró, Rodríguez, & Bliese, 2012](#)). Finally, it is conceivable that not only demands increase, but that job resources also decrease with increasing levels of burnout. As indicated in [Fig. 2](#), employees who score higher on burnout may also be less likely to mobilize their job resources. Indeed, [Schaufeli, Bakker, et al. \(2009\)](#) found that managers who scored higher on T1 burnout were less likely to receive performance feedback in the following year; and [Ten Brummelhuis et al. \(2011\)](#) found that employees who scored higher on T1 burnout were less likely to receive co-worker and supervisor support; to experience job autonomy; to participate in decision-making; and to have access to information in the following two years.

3.2. Daily job resources and job crafting

Employees with high levels of chronic burnout are not only more likely to end up in a loss cycle of daily job demands, exhaustion, and self-undermining. They are simultaneously also less likely to profit from a gain cycle of daily job resources, daily work engagement,

and daily job crafting (see [Fig. 2](#)). In job crafting, employees independently modify aspects of their jobs to improve the fit between the characteristics of the job and their own abilities, needs, and preferences ([Berg, Dutton, & Wrzesniewski, 2010](#)). According to [Wrzesniewski and Dutton \(2001\)](#), employees may craft the tasks they must fulfill at work, the interpersonal relationships they experience when performing their work, or they may positively reframe the way they think about their work. Building on these ideas, [Tims, Bakker and Derks \(2013\)](#) showed that employees who craft their own job demands and resources increase their levels of work engagement and reduce the risk of burnout.

Unfortunately, burned-out employees seem less likely to profit from the gain cycle of daily job resources, daily work engagement, and daily job crafting put forward by JD-R theory ([Bakker & Demerouti, 2014](#); see [Figs. 1 and 2](#)). This is particularly problematic because daily job resources such as performance feedback, training, and social support are needed to cope with daily job demands. Additionally, given that job resources have motivational potential ([Hackman & Oldham, 1980](#)), not being able to profit from daily job resources means low levels of work engagement on a daily basis. Once engaged, employees are more likely to mobilize their job resources in order to stay engaged ([Bakker, 2011](#)). Employees with chronic burnout miss the energy and motivation to start such job crafting behavior. Thus, individuals high in burnout miss opportunities to profit from a gain cycle ([Hobfoll, 2002](#)) in which resources accumulate over time ([Hakanen, Perhoniemi, & Toppinen-Tanner, 2008](#)).

Gain spirals are technically defined as amplifying loops in which cyclic relationships among constructs build on each other positively over time ([Lindsley, Brass, & Thomas, 1995](#)). According to conservation of resources theory ([Hobfoll, 2002](#)), the acquisition and accumulation of resources is a pivotal drive that initiates and maintains people's behavior. Accordingly, people are motivated to obtain, retain, foster and protect resources. Research in the realm of organizations has provided evidence for the existence of gain cycles (not spirals) of job resources and engagement: job resources predict personal resources and work engagement; personal resources and work engagement, in turn, predict job resources over time (see [Bakker & Demerouti, 2014](#); [Salanova, Schaufeli, Xanthopoulou, & Bakker, 2010](#)).

Furthermore, research has provided evidence for a negative relationship between burnout and job resources (see [Fig. 2](#)), most probably because of the withdrawal behavior that is characteristic of individuals high in burnout. [Ten Brummelhuis et al. \(2011\)](#) found in a two-year follow up study that baseline burnout predicted future burnout directly and indirectly, through an increase in job demands and a decrease in job resources. Regarding job resources, the authors found that burnout resulted in a decrease in co-worker and supervisor support, a reduction of job autonomy and information, and less participation in decision-making. In a similar vein, [De Beer, Pienaar, and Rothmann Jr. \(2013\)](#) conducted a one-year follow-up study in the mining sector and found that T1 burnout was negatively related to T2 social support from colleagues, T2 social support from supervisors, and marginally significantly, negatively related to T2 role clarity, also suggesting that employees with higher levels of burnout are less likely to have access to job resources.

Job resources such as social support, performance feedback, and opportunities for development are motivating because they help to deal with job demands and reach work-related goals ([Bakker & Demerouti, 2014](#)). Employees high in burnout are less likely to profit from such job resources because they are less open to new experiences ([Bakker, Van der Zee, Lewig, & Dollard, 2006](#); [Sandström et al., 2011](#)). In addition, burned-out employees may be less able to focus on a variety of tasks because of their health problems, including anxiety, depression, sleep disturbance, memory

impairment, and neck pain (Ahola, 2007). Moreover, as alluded to before, burned-out employees are less likely to proactively change their own work environment. Indeed, Tims, Bakker, & Derks, 2012 found that burnout was negatively related to proactive behavior at work. In addition, employees who scored higher on cynicism were less likely to craft their social and structural job resources or to craft their challenges at work. In contrast, engaged employees were more likely to increase their challenges, and, for example, to seek social support and ask for feedback. This positive link between engagement and job crafting has also been found on a daily basis (Demerouti & Bakker, 2014; Petrou, Demerouti, Peeters, Schaufeli, & Hetland, 2012). Daily job crafting can, in turn, have a positive impact on daily job resources (see Fig. 2).

Finally, burned-out individuals seem to fail to satisfy their basic psychological needs. According to self-determination theory, people have three innate psychological needs, namely the needs for autonomy, competence, and relatedness (Deci & Ryan, 2000). The need for *autonomy* implies that people have a universal urge to be causal agents and to experience volition; the need for *competence* concerns people's inherent desire to be effective in dealing with the environment; and the need for *relatedness* implies the universal propensity to interact with, be connected to, and experience caring for other people (Baumeister & Leary, 1995). Research of the past decades has shown that satisfaction of these three needs fosters well-being and performance, whereas frustration of the needs fosters job strain and impaired performance (Gagne & Vansteenkiste, 2013). In a student setting, fulfillment of the needs for autonomy, competence and relatedness was related to well-being on a day-to-day basis (Reis, Sheldon, Gable, Roscoe, & Ryan, 2000). In a recent study in an organizational setting, Bakker and Oerlemans (2014) found that the more time burned-out (vs. healthy) individuals spent on work-related activities (e.g., core work tasks, administrative tasks, meetings with clients, and interactions with colleagues), the lower their momentary need satisfaction, and the lower their daily happiness. Because burned-out employees seem unable to satisfy their daily basic needs for relatedness, autonomy and competence through work, it is likely that their daily work engagement is low as well.

4. Practical implications

We have argued that chronic burnout has a detrimental effect on employees' daily functioning, because burnout strengthens the loss cycle of daily demands, daily exhaustion, and daily self-undermining. In addition, burnout undermines the gain cycle of daily job resources, daily work engagement, and daily job crafting. Therefore, chronically burned-out employees or those at risk for burnout need help from others in order to change the structural causes that contribute to their impaired health status and work capacity. Organizations (e.g., occupational health professionals or human resource managers) should play a central role in the prevention and reduction of burnout, simultaneously paying attention to the organizational context and the personal needs of the individual employee (Kompier, Cooper, & Geurts, 2000). Management should develop policies to optimize structural job demands and resources – particularly for those who are at risk for burnout. Discussing the working conditions with individual employees, after an assessment of personal job demands and resources, is one possible intervention. Together with the employee, leaders may identify and try to reduce hindrance job demands, such as role ambiguity or role conflict (Crawford, LePine, & Rich, 2010). Simultaneously, they may try to identify and develop job resources that foster work engagement and help coping with the job demands. Leaders can also be trained to better supervise their employees, by learning how to offer adequate, constructive feedback and how to establish clear

goals for their employees. This is not an easy pursuit, but research suggests that structural burnout interventions can have favorable effects (Leiter & Maslach, 2014).

Additionally, recent research suggests that job crafting is an important 'bottom-up' approach that can be used to train employees to optimize their own work environment themselves, so that they stay engaged (Van den Heuvel, Demerouti, & Peeters, 2012). In the training, employees who are at risk for burnout may learn to identify the demands and resources in their work environment. Consequently, they learn the principles of job crafting, and make their personal job crafting plan. This plan includes goal setting, such as seeking specific job resources (e.g., asking for feedback and social support), and reducing work pressure and role conflicts (Demerouti & Bakker, 2014). Job crafting should, of course, not become an additional demand that needs to be dealt with, because that would increase daily exhaustion. Managers who help employees at risk for burnout allocate time to job crafting. Future research should test whether job crafting can really work for employees who are high on chronic burnout.

The present theoretical analysis clearly indicates that employee well-being and work behavior fluctuates on a daily basis. Employees may either craft their daily work environment and mobilize their job resources, or run into trouble because of their high level of exhaustion, creating higher job demands through a process of self-undermining. Daily interventions may interrupt these loss cycles. First, in our projects, we provide feedback to our participants about their daily activities and daily experiences (e.g., Breevaart et al., 2014). On the basis of this feedback, employees (high or low in burnout) learn what the possible daily causes are of their fatigue. This information can be used as a starting point for behavior change. Another option is the use of smartphone applications that offer the possibility to monitor the daily fluctuations in engagement, and offer feedback to the users regarding the possible causes of the peaks and lows in engagement from day to day, or even within the day. Additionally, research has indicated that recovery is a crucial strategy. Recovery activities, such as social activities (e.g., having dinner with friends), low-effort activities (reading, listening to music, surfing on the internet), and physical activities (e.g., sport, exercise, dancing) may foster relaxation and psychological detachment from work, which may, in turn, facilitate next day's work engagement (see, also regarding methodology; Bakker, Demerouti, Oerlemans, & Sonnentag, 2013; Ten Brummelhuis & Bakker, 2012). Employees may also learn how to better cope with their exhaustion by mastering the activities that are most helpful for recovery from their work-related efforts (Hahn, Binnewies, Sonnentag, & Mojza, 2011), including the activities mentioned above.

5. Conclusion

Burnout is a combination of chronic exhaustion and negative attitudes toward work with damaging consequences for employee health and productivity. In this article, we developed an overall model of burnout in which chronic burnout is considered as an important moderator of daily employee functioning. We have argued and shown that chronic burnout strengthens the loss cycle of daily job demands, daily exhaustion, and daily self-undermining, whereas chronic burnout weakens the gain cycle of daily job resources, daily work engagement, and daily job crafting. Future research should test these propositions in cross-level research, in which employees high in chronic burnout are compared with those low in burnout regarding their management of daily job demands and resources. Employees with high levels of burnout need help in structurally changing their working conditions and health status, and we hope that the present article offers a framework with which this can be achieved.

Conflict of interest

The authors declare that there are no conflicts of interest.

References

- Ahola, K. (2007). *Occupational burnout and health*. Helsinki: Finnish Institute of Occupational Health (Report 81).
- Ahola, K., Väänänen, A., Koskinen, A., Kouvonen, A., & Shirom, A. (2010). Burnout as a predictor of all-cause mortality among industrial employees: A 10-year prospective register-linkage study. *Journal of Psychosomatic Research*, *69*, 51–57. <http://dx.doi.org/10.1016/j.jpsychores.2010.01.002>
- Alarcon, G., Eschleman, K. J., & Bowling, N. A. (2009). Relationship between personality variables and burnout: A meta-analysis. *Work and Stress*, *23*, 244–263. <http://dx.doi.org/10.1080/02678370903282600>
- Alarcon, G. M. (2011). A meta-analysis of burnout with job demands, resources, and attitudes. *Journal of Vocational Behavior*, *79*, 549–562. <http://dx.doi.org/10.1016/j.jvb.2011.03.007>
- Bakker, A. B. (2011). An evidence-based model of work engagement. *Current Directions in Psychological Science*, *20*, 265–269. <http://dx.doi.org/10.1177/0963721411414534>
- Bakker, A. B., & Demerouti, E. (2007). The Job Demands–Resources model: State of the art. *Journal of Managerial Psychology*, *22*, 309–328. <http://dx.doi.org/10.1108/02683940710733115>
- Bakker, A. B., & Demerouti, E. (2014). Job demands–resources theory. In P. Y. Chen, & C. L. Cooper (Eds.), *Work and wellbeing: Wellbeing: A complete reference guide* (Vol. III) (pp. 37–64). Chichester, UK: Wiley-Blackwell.
- Bakker, A. B., Demerouti, E., & Euwema, M. C. (2005). Job resources buffer the impact of job demands on burnout. *Journal of Occupational Health Psychology*, *10*, 170–180. <http://dx.doi.org/10.1037/1076-8998.10.2.170>
- Bakker, A. B., Demerouti, E., Oerlemans, W., & Sonnentag, S. (2013). *Workaholism and daily recovery: A day reconstruction study of leisure activities*. *Journal of Organizational Behavior*, *34*, 87–107.
- Bakker, A. B., Demerouti, E., & Sanz-Vergel, A. I. (2014). *Burnout and work engagement: The JD–R approach*. *Annual Review of Organizational Psychology and Organizational Behavior*, *1*, 389–411.
- Bakker, A. B., & Oerlemans, W. G. M. (2014). Momentary work happiness as a function of enduring burnout and engagement: A day reconstruction study (submitted for publication).
- Bakker, A. B., Schaufeli, W. B., Sixma, H., Bosveld, W., & Van Dierendonck, D. (2000). Patient demands, lack of reciprocity, and burnout: A five-year longitudinal study among general practitioners. *Journal of Organizational Behavior*, *21*, 425–441. [http://dx.doi.org/10.1002/\(SICI\)1099-1379\(200006\)21:4<425::AID-JOB21>3.0.CO;2-#](http://dx.doi.org/10.1002/(SICI)1099-1379(200006)21:4<425::AID-JOB21>3.0.CO;2-#)
- Bakker, A. B., Van der Zee, K. I., Ledwig, K. A., & Dollard, M. F. (2006). The relationship between the Big-Five personality factors and burnout: A study among volunteer counsellors. *Journal of Social Psychology*, *146*, 31–50. <http://dx.doi.org/10.3200/SOCP.146.1.31-50>
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, *117*, 497–529.
- Berg, J. M., Wrzesniewski, A., & Dutton, J. E. (2010). Perceiving and responding to challenges in job crafting at different ranks: When proactivity requires adaptivity. *Journal of Organizational Behavior*, *31*, 158–186.
- Borritz, M., Rugulies, R., Christensen, K. B., Villadsen, E., & Kristensen, T. S. (2006). Burnout as a predictor of self-reported sickness absence among human service workers: Prospective findings from three year follow up of the PUMA study. *Occupational Environmental Medicine*, *63*, 98–106. <http://dx.doi.org/10.1136/oem.2004.019364>
- Breevaart, K., Bakker, A. B., Hetland, J., Demerouti, E., Olsen, O. K., & Espevik, R. (2014). Daily transactional and transformational leadership and daily employee engagement. *Journal of Occupational and Organizational Psychology*, *87*, 138–157. <http://dx.doi.org/10.1111/joop.12041>
- Cacioppo, J. T., Gardner, W. L., & Berntson, G. G. (1999). The affect system has parallel and integrative processing components form follows function. *Journal of Personality and Social Psychology*, *76*, 839–855. <http://dx.doi.org/10.1037/0022-3514.76.5.839>
- Cooper, C. (1996, June 21). Hot under the collar. In *Times Higher Education Supplement*.
- Costa, P. T., Jr., & McCrae, R. R. (1985). *The NEO Personality Inventory manual*. Odessa, FL: Psychological Assessment Resources.
- Crawford, E. R., LePine, J. A., & Rich, B. L. (2010). Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test. *Journal of Applied Psychology*, *95*, 834–848. <http://dx.doi.org/10.1037/a0019364>
- De Beer, L. T., Pienaar, J., & Rothmann, S., Jr. (2013). Investigating the reversed causality of engagement and burnout in job demands–resources theory. *South African Journal of Industrial Psychology*, *39*, 1–9. <http://dx.doi.org/10.4102/sajip.v39i1.1055>
- Deci, E. L., & Ryan, R. M. (2000). The what and why of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, *11*, 227–268.
- Demerouti, E., & Bakker, A. B. (2011). The Job Demands–Resources model: Challenges for future research. *South African Journal of Industrial Psychology*, *37*, 1–9.
- Demerouti, E., & Bakker, A. B. (2014). Job crafting. In M. C. W. Peeters, J. de Jonge, & T. W. Taris (Eds.), *An introduction to contemporary work psychology* (pp. 414–433). Chichester, UK: Wiley-Blackwell.
- Demerouti, E., Bakker, A. B., & Bulters, A. J. (2004). The loss spiral of work pressure, work–home interference and exhaustion: Reciprocal relations in a three-wave study. *Journal of Vocational Behavior*, *64*, 131–149. [http://dx.doi.org/10.1016/S0001-8791\(03\)00030-7](http://dx.doi.org/10.1016/S0001-8791(03)00030-7)
- Demerouti, E., Bakker, A. B., & Leiter, M. P. (2014). Burnout and job performance: The moderating role of selection, optimization, and compensation strategies. *Journal of Occupational Health Psychology*, *19*, 96–107. <http://dx.doi.org/10.1037/a0035062>
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The Job Demands–Resources model of burnout. *Journal of Applied Psychology*, *86*, 499–512. <http://dx.doi.org/10.1037/0021-9010.86.3.499>
- Demerouti, E., Le Blanc, P. M., Bakker, A. B., Schaufeli, W. B., & Hox, J. (2009). Present but sick: A three-wave study on job demands, presenteeism and burnout. *Career Development International*, *14*, 50–68. <http://dx.doi.org/10.1108/13620430910933574>
- Derryberry, D., & Tucker, D. M. (1994). Motivating the focus of attention. In P. M. Niedenthal, & S. Kitayama (Eds.), *Heart's eye: Emotional influences in perception and attention* (pp. 167–196). New York: Academic Press.
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotion. *American Psychologist*, *56*, 218–226.
- Gagné, M., & Vansteenkiste, M. (2013). Self-determination theory's contribution to positive organizational psychology. In A. B. Bakker (Ed.), *Advances in positive organizational psychology* (Vol. 1) (pp. 61–82). Bingley, UK: Emerald.
- González-Morales, M. G., Peiró, J. M., Rodríguez, I., & Bliese, P. D. (2012). Perceived collective burnout: A multilevel explanation of burnout. *Anxiety, Stress & Coping*, *25*, 43–61.
- Hackman, J. R., & Oldham, G. R. (1980). *Work redesign*. Reading, MA: Addison-Wesley.
- Hahn, V. C., Binnewies, C., Sonnentag, S., & Mojza, E. J. (2011). Learning how to recover from job stress: Effects of a recovery training program on recovery, recovery-related self-efficacy and well-being. *Journal of Occupational Health Psychology*, *16*, 202–216. <http://dx.doi.org/10.1037/a0022169>
- Hakanen, J. J., Bakker, A. B., & Jokisaari, M. (2011). A 35-year follow-up study on burnout among Finnish employees. *Journal of Occupational Health Psychology*, *16*, 345–360. <http://dx.doi.org/10.1037/a0022903>
- Hakanen, J. J., Perhoniemi, R., & Toppinen-Tanner, S. (2008). Positive gain spirals at work: From job resources to work engagement, personal initiative and work-unit innovativeness. *Journal of Vocational Behavior*, *73*, 78–91. <http://dx.doi.org/10.1016/j.jvb.2008.01.003>
- Hakanen, J. J., & Schaufeli, W. B. (2012). Do burnout and work engagement predict depressive symptoms and life satisfaction? A three-wave seven-year prospective study. *Journal of Affective Disorders*, *141*, 415–424. <http://dx.doi.org/10.1016/j.jad.2012.02.043>
- Hanisch, K. A. (1995). Behavioral families and multiple causes: Matching the complexity of responses to the complexity of antecedents. *Current Directions in Psychological Science*, *4*, 156–162. <http://dx.doi.org/10.1111/1467-8721.ep11512268>
- Hobfoll, S. E. (2002). Social and psychological resources and adaptation. *Review of General Psychology*, *6*, 307–324. <http://dx.doi.org/10.1037/1089-2680.6.4.307>
- Jones, E. E., & Berglas, S. (1978). Control of attributions about the self through self-handicapping strategies: The appeal of alcohol and the role of underachievement. *Personality and Social Psychology Bulletin*, *4*, 200–206. <http://dx.doi.org/10.1177/014616727800400205>
- Kim, H., Ji, J., & Kao, D. (2011). Burnout and physical health among social workers: A three-year longitudinal study. *Social Work*, *6*, 258–268. <http://dx.doi.org/10.1093/sw/56.3.258>
- Kompier, M. A. J., Cooper, C. L., & Geurts, S. A. E. (2000). A multiple case study approach to work stress prevention in Europe. *European Journal of Work and Organizational Psychology*, *9*, 371–400. <http://dx.doi.org/10.1080/135943200417975>
- Lee, R. T., & Ashforth, B. E. (1996). A meta-analytic examination of the correlates of the three dimensions of job burnout. *Journal of Applied Psychology*, *81*, 123–133. <http://dx.doi.org/10.1037/0021-9010.81.2.123>
- Leiter, M. P., & Maslach, C. (2014). Interventions to prevent and alleviate burnout. In M. P. Leiter, A. B. Bakker, & C. Maslach (Eds.), *Burnout at work: A psychological perspective*. Hove, Sussex: Psychology Press.
- Lindsay, D. H., Brass, D. J., & Thomas, J. B. (1995). Efficacy–performance spirals: A multilevel perspective. *Academy of Management Review*, *20*, 645–678.
- Maslach, C., Jackson, S. E., & Leiter, M. P. (1996). *MBI: The Maslach Burnout Inventory: Manual*. Palo Alto, CA: Consulting Psychologists Press.
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. In S. T. Fiske, D. L. Schacter, & C. Zahn-Waxler (Eds.), *Annual review of psychology* (Vol. 52) (pp. 397–422).
- Melamed, S., Shirom, A., Toker, S., & Shapira, I. (2006). Burnout and risk of Type 2 diabetes: A prospective study of apparently healthy employed persons. *Psychosomatic Medicine*, *68*, 863–869.
- Mohren, D. C. L., Swaen, G. M. H., Kant, I. J., van Amelsvoort, L. G. P. M., Borm, P. J. A., & Galama, J. (2003). Common infections and the role of burnout in a Dutch working population. *Journal of Psychosomatic Research*, *55*, 201–208. [http://dx.doi.org/10.1016/S0022-3999\(02\)00517-2](http://dx.doi.org/10.1016/S0022-3999(02)00517-2)
- Penney, L. M., & Spector, P. E. (2008). Emotions and counterproductive work behavior. In N. M. Ashkanasy, & C. L. Cooper (Eds.), *Research companion to emotion in organizations* (pp. 183–196). Cheltenham, UK: Edward Elgar.

- Peterson, U., Bergstrom, G., Demerouti, E., Gustavsson, P., Asberg, M., & Nygren, A. (2011). Burnout levels and self-rated health prospectively predict future long-term sickness absence: A study among female health professionals. *Journal of Occupational and Environmental Medicine*, *53*, 788–793. <http://dx.doi.org/10.1097/JOM.0b013e318222b1dc>
- Peterson, U., Demerouti, E., Bergström, G., Samuelsson, M., Asberg, M., & Nygren, A. (2008). Burnout and physical and mental health among Swedish health-care workers. *Journal of Advanced Nursing*, *62*, 84–95. <http://dx.doi.org/10.1111/j.1365-2648.2007.04580.x>
- Petrou, P., Demerouti, E., Peeters, M. C. W., Schaufeli, W. B., & Hetland, J. (2012). Crafting a job on a daily basis: Contextual correlates and the link to work engagement. *Journal of Organizational Behavior*, *33*, 1120–1141. <http://dx.doi.org/10.1002/job.1783>
- Reis, H. T., Sheldon, K. M., Gable, S. L., Roscoe, J., & Ryan, R. M. (2000). Daily well-being: The role of autonomy, competence, and relatedness. *Personality and Social Psychology Bulletin*, *26*, 419–435.
- Roe, R. (2003). Gezondheid en prestaties. In W. B. Schaufeli, A. B. Bakker, & J. De Jonge (Eds.), *De Psychologie van Arbeid en Gezondheid* (pp. 375–388). Houten/Mechelen: Bohn Stafleu Van Loghum.
- Salanova, M., Schaufeli, W. B., Xanthopoulou, D., & Bakker, A. B. (2010). Gain spirals of resources and work engagement. In A. B. Bakker, & M. P. Leiter (Eds.), *Work engagement: A handbook of essential theory and research*. (pp. 118–131). New York: Psychology Press.
- Sandström, A., Peterson, J., Sandström, E., Lundberg, M., Nystrom, I.-L., Nyberg, L., & Olsson, T. (2011). Cognitive deficits in relation to personality type and hypothalamic-pituitary-adrenal (HPA) axis dysfunction in women with stress-related exhaustion. *Scandinavian Journal of Psychology*, *52*, 71–82. <http://dx.doi.org/10.1111/j.1467-9450.2010.00844.x>
- Schaufeli, W. B., Bakker, A. B., Hoogduin, K., Schaap, C., & Kladler, A. (2001). On the clinical validity of the Maslach Burnout Inventory and the Burnout Measure. *Psychology & Health*, *16*, 565–582. <http://dx.doi.org/10.1080/08870440108405527>
- Schaufeli, W. B., Bakker, A. B., & Van Rhenen, W. (2009). How changes in job demands and resources predict burnout, work engagement, and sickness absenteeism. *Journal of Organizational Behavior*, *30*, 893–917. <http://dx.doi.org/10.1002/job.595>
- Schaufeli, W. B., Leiter, M. P., & Maslach, C. (2009). Burnout: 35 years of research and practice. *Career Development International*, *14*, 204–220.
- Schaufeli, W. B., Maassen, G. H., Bakker, A. B., & Sixma, H. J. (2011). Stability and change in burnout: A 10-year follow-up study among primary care physicians. *Journal of Occupational and Organizational Psychology*, *84*, 248–267. <http://dx.doi.org/10.1111/j.2044-8325.2010.02013.x>
- Simbula, S. (2010). Daily fluctuations in teachers' well-being: A diary study using the Job Demands–Resources model. *Anxiety, Stress & Coping*, *23*, 563–584.
- Sonnenschein, M., Sorbi, M. J., Van Doornen, L. J. P., Schaufeli, W. B., & Maas, C. J. (2007). Electronic diary evidence on energy erosion in clinical burnout. *Journal of Occupational Health Psychology*, *12*, 402–413. <http://dx.doi.org/10.1037/1076-8998.12.4.402>
- Swider, B. W., & Zimmerman, R. D. (2010). Born to burnout: A meta-analytic path model of personality, job burnout, and work outcomes. *Journal of Vocational Behavior*, *76*, 487–506. <http://dx.doi.org/10.1016/j.jvb.2010.01.003>
- Taris, T. W. (2006). Is there a relationship between burnout and objective performance? A critical review of 16 studies. *Work & Stress*, *20*, 316–334. <http://dx.doi.org/10.1080/02678370601065893>
- Ten Brummelhuis, L. L., & Bakker, A. B. (2012). Staying engaged during the week: The effect of off-job activities on next day work engagement. *Journal of Occupational Health Psychology*, *17*, 445–455.
- Ten Brummelhuis, L. L., Ter Hoeven, C. L., Bakker, A. B., & Peper, B. (2011). Breaking through the loss cycle of burnout: The role of motivation. *Journal of Occupational and Organizational Psychology*, *84*, 268–287. <http://dx.doi.org/10.1111/j.2044-8325.2011.02019.x>
- Tims, M., Bakker, A. B., & Derks, D. (2012). Development and validation of the job crafting scale. *Journal of Vocational Behavior*, *80*, 173–186. <http://dx.doi.org/10.1016/j.jvb.2011.05.009>
- Tims, M., Bakker, A. B., & Derks, D. (2013). The impact of job crafting on job demands, job resources, and well-being. *Journal of Occupational Health Psychology*, *18*, 230–240.
- Toppinen-Tanner, S., Ojajarvi, A., Väänänen, A., Kalimo, R., & Jäppinen, P. (2005). Burnout as a predictor of medically certified sick-leave absences and their diagnosed causes. *Behavioral Medicine*, *31*, 18–27. <http://dx.doi.org/10.3200/BMED.31.1.18-32>
- Van den Heuvel, M., Demerouti, E., & Peeters, M. (2012). Succesvol job craften door middel van een groepstraining. In J. de Jonge, M. Peeters, S. Sjollem, & H. de Zeeuw (Eds.), *Scherp in werk: 5 routes naar optimale inzetbaarheid* (pp. 27–49). Assen, The Netherlands: Van Gorcum.
- Van der Linden, D., Keijsers, G. P. J., Eling, P., & Van Schaijk, R. (2005). Work stress and attentional difficulties: An initial study on burnout and cognitive failures. *Work & Stress*, *19*, 23–36. <http://dx.doi.org/10.1080/02678370500065275>
- Van Gelderen, B. R., Konijn, E. A., & Bakker, A. B. (2011). Emotional labor among trainee police officers: The interpersonal role of positive emotions. *Journal of Positive Psychology*, *6*, 163–172.
- Van Gelderen, B. R., Konijn, E. A., & Bakker, A. B. (2014). Emotional labor among police officers: A diary study relating strain, emotional labor, and service performance (submitted for publication).
- Wrzesniewski, A., & Dutton, J. E. (2001). Crafting a job: Revisioning employees as active crafters of their work. *Academy of Management Review*, *26*, 179–201.
- Xanthopoulou, D., Bakker, A. B., & Ilies, R. (2012). Everyday working life: Explaining within-person fluctuations in employee well-being. *Human Relations*, *65*, 1051–1069. <http://dx.doi.org/10.1177/0018726712451283>
- Zapf, D., Dormann, C., & Frese, M. (1996). Longitudinal studies in organizational stress research: A review of the literature with reference to methodological issues. *Journal of Occupational Health Psychology*, *1*, 145–169.