7. Academic burnout: causes and consequences

Maria Therese Jensen and Espen Olsen

INTRODUCTION

The 2030 Agenda for Sustainable Development was adopted by all United Nations Member States in 2015, as means of peace and prosperity for people and the planet. Several of the 17 Sustainable Development Goals are also applicable to creating a sustainable and healthy work-life, including good health and well-being (goal 3), gender equality (goal 5), decent work (part of goals 8 and 10), and reduced inequalities (goal 10) (https://sdgs.un.org/goals). To create sustainable business schools that improve both health and education, it is in our view essential to also focus on the well-being of the academic workforce. Within the business school, they are, after all, the core drivers in educating future leaders. Thus, it is important to ensure a healthy working environment for this group to ensure individual health and high-quality education.

Today's academics working in universities are facing increasing demands compared to previous generations, resulting in high levels of job stress and burnout: stress and burnout may again threaten both the individual health of the academic and the quality of education. Burnout refers to a depletion of mental resources which is caused by chronic work-related stress and has further been defined as a persistent negative work-related state of mind (Schaufeli & Enzmann, 1998). More than 30 years ago (Seldin, 1987) concluded from his review that an astonishingly high amount of stress had been forced upon academics – and concluded that these high levels of stress would continue in the future. There is considerable evidence that Seldin (1987) was right in his assumptions, as more recent studies have shown that, in general, academic work environments have diminished from the 1980s until today (Kinman & Jones, 2008; Tytherleigh et al., 2005). Traditionally, academic work was perceived as a low-strain job characterized by flexibility, international travel for conferences, and the freedom to follow own research interests – but in recent decades several of these benefits have been reduced (Gillespie et al., 2001). Recent research indicates that stress among academics is alarmingly high, and

increasing (Reevy & Deason, 2014). Moreover, academics are paid less than other comparative professions with equivalent education (Lyons & Ingersoll, 2010). Locke and Bennion (2013) point out that a dominant discourse concerning academics' work conditions is that their profession has become proletarianized; meaning their work has become industrialized, they have become deskilled, and their autonomy has diminished.

High stress levels among academics can be considered a threat to the attainment of the Sustainable Development Goals relating to good health and well-being, and decent work-life, and may also increase the gender gaps within the academic workforce, as a result of high work–family conflict. Nearly ten years ago, Watts and Robertson (2011) conducted a review on burnout among university teaching staff and concluded that research on this topic was scarce and needed greater attention. Still, when searching the literature today, it is remarkable how little research has been done on burnout among academic and teaching staff in higher education, compared to teachers in lower education. Within education research, the study of burnout has to large extent focused on primary and secondary school teachers, whereas less attention has been given to the study of burnout among academics working in the higher education sector (Zábrodská et al., 2018).

In the current chapter, we take the workers' perspective and focus particularly on the causes and consequences of burnout among academics, in addition to considering how burnout may be prevented. The current chapter is organized as follows. First, we start by describing burnout and its individual health effects, followed by an introduction to the Job Demands-Resources (JD-R) model (Bakker & Demerouti, 2007), as the JD-R model may be utilized to explain the process of burnout among academics in the university sector. Second, we describe the various managerial reforms which have been introduced in the university sectors across countries, considering these reforms generally have increased academics' job demands. Third, we outline the most relevant antecedents of burnout for academics in the university sector, before we introduce moderators of burnout relevant for academics. Fourth, we give an overview of how burnout levels vary between countries and institutions, before discussing the consequences of burnout for the organization. Finally, we try to answer how burnout may be prevented among academics in light of relevant job resources before we offer a short discussion and conclusion.

THEORETICAL PERSPECTIVES AND RESEARCH

Definition of Burnout and Health Effects

As noted previously, burnout is defined as a persistent negative work-related state of mind (Schaufeli & Enzmann, 1998). Burnout consists of three main

components referred to as emotional exhaustion, reduced personal accomplishment, and depersonalization (Maslach et al., 1986). Emotional exhaustion is characterized by a general lack of energy, due to the fact that the individuals use all their emotional resources on work-related activities. Reduced personal accomplishment is expressed by feelings of incompetence and lack of achievement (Maslach et al., 1996), whereas depersonalization is manifested by the employee distancing him/herself from their work (Schaufeli & Enzmann, 1998).

However, a consensus on a definition of burnout has been lacking, and recently, an international expert panel from 29 countries agreed on a definition of burnout as follows: 'In a worker, occupational burnout, or occupational physical AND emotional exhaustion state is exhaustion due to prolonged exposure to work-related problems' (Canu et al., 2021). However, the expert panel's definition of burnout was recently criticized by Schaufeli (2021) for lacking a theoretical underpinning. A second criticism relates to the fact that the definition is primarily concerned with 'formal workers', indicating that other groups in society (e.g., students, athletes) cannot experience burnout. A final criticism is that the definition only refers to emotional and physical exhaustion, without clarifying other types of exhaustion (e.g., cognitive, mental). Schaufeli further argues that mental distancing should be included in addition to exhaustion, which has also been supported in a recent review of burnout scales (Schaufeli et al., 2020). Conclusively, a final consensus regarding the content of burnout remains to be solved.

Although there is no complete consensus regarding the definition of burnout, it is still well established that burnout has negative health effects on the individual both psychologically and physiologically. Psychologically, consequences of burnout are depression and anxiety (see the meta-study by Schonfeld & Bianchi, 2016). Other psychological consequences of burnout are insomnia, increased use of psychotropic and antidepressant medications, and hospitalization for mental disorders (see Salvagioni et al., 2017 for a meta-study). Burnout can also lead to physical consequences for the individual and has been found to relate to hypercholesterolemia, type 2 diabetes, coronary heart disease, hospitalization due to cardiovascular disorder, musculoskeletal pain, changes in pain experiences, prolonged fatigue, headaches, gastrointestinal issues, respiratory problems, severe injuries and mortality below the age of 45 years (see Salvagioni et al., 2017).

The Job Demands-Resources Model

A useful and flexible approach when trying to understand the underlying factors that could lead to burnout among academics is the JD-R model (Demerouti et al., 2001). The JD-R model is reckoned as one of the leading

models when it comes to studies on strain and burnout (Schaufeli & Taris, 2014), and its origin was based on the meta-study of Lee and Ashforth (1996), where several job demands and job resources were identified as antecedents of burnout. The JD-R model emphasizes that every occupation is unique, and therefore, job demands and job resources can vary depending on the job. At the same time, some demands, and resources, are relatively general in a large number of work contexts (e.g., social support, autonomy, and work pressure [Bakker & Demerouti, 2014]). Thus, the definition of job demands and job resources in the JD-R model is relatively broad and may include numerous variables. 'Job demands' refers to 'physical, psychological or organizational aspects of the job that require sustained physical and/or psychological effort and are thus associated with certain physiological and/or psychological costs' (Demerouti et al., 2001, p. 501). 'Job resources' refers to 'Those physical, social, or organizational aspects of the job that may do any of the following: (a) be functional in achieving work goals; (b) reduce job demands and the associated physiological and psychological costs (c) stimulate personal growth, learning, and development' (Demerouti et al., 2001, p. 501).

The JD-R model refers to two main processes: the health impairment process and the motivational process (Bakker & Demerouti, 2007). The health impairment process takes place when chronic job demands drain the individual's energy, leading to burnout and eventually health problems. On the other hand, the motivational process relates to work engagement, through the fulfillment of relatedness, competence, and autonomy, which can be defined as basic psychological needs (Bakker & Demerouti, 2014). In addition to being important in their own right, job resources may also function as a buffer on the relation between job demands and burnout, and thus can protect the individual from burnout and the process of health impairment (Bakker & Demerouti, 2007).

Managerial Reforms in the University Setting

As mentioned before, stress among academics is increasing. One explanatory factor that must be considered essential for the high stress levels is the increase in managerial reforms that have taken place in the university sector during the last decade. Generally, managerial reforms in the education system are adopted and implemented differently in different countries. However, a general trend in several higher education systems is the implementation of a private corporation management style (Anderson, 2008), meaning that external stakeholders are involved in the operation of universities, referred to as accountability. Characteristics of such accountability systems are, for instance, the presence of performance-based indicators (Anderson, 2008). The implementation of the accountability system, with strong managerial reforms, has resulted in more paperwork for academics. In addition, it is expected that

they increase their teaching hours and commit to a higher degree of entrepreneurial and community activities than before (Anderson, 2008). Lyons and Ingersoll (2010) state that, as a result of such managerial reforms, university staff experience decreased influence on decision making at their workplace. There is evidence that in countries where strong managerial reform referred to as new public management has been implemented, job stress is increasing (Fredman & Doughney, 2012).

Differences in Managerial Reforms across Countries

Clark (1986) conceptualized the systemic differences in the managing of universities across countries, where he refers to three types of systems: the professor-oriented system, the market-oriented system, and the state-oriented system. Specifically, the degree of participation in decision making within the university, social reputation, evaluation and rewards, and which role academics hold will differ between these systems (Clark, 1983). For instance, in professor-oriented systems, which are present in the majority of European countries, academics are generally highly involved in decision-making processes, their area of expertise is respected outside of academia, and they have a high degree of freedom when it comes to defining the content of their jobs. Moreover, compared to the state-oriented or market-oriented systems, their social reputation is higher. The market-oriented system is widespread in Anglo-American countries, where the content of an academic's job is to a larger extent defined by the market and external stakeholders. As a result, academics in the market-oriented system are less autonomous and empowered than academics working in the professor-oriented system. Finally, in the state-oriented system academics have a low degree of autonomy, as a result of being controlled by the state. From a burnout perspective, these systematic differences between universities in different countries are important. The reason is that research found that characteristics of the system relates to variations in job stress and also to job satisfaction (Cummings & Shin, 2013). This again may have implications for academics' burnout levels. For instance, Bentley (2013) found that academics working in a market-oriented system reported lower satisfaction with their job and higher stress levels, compared to academics working in the professor-oriented system.

Generally, academic jobs in Europe are shifting, from an independent nature, towards market-oriented managerial reforms resulting in declining job security and lower salary levels. There is evidence that managerial reforms do not have a positive effect on the quality of teaching and research (e.g. Cameron, & Quinn 1999; Dunleavy et al., 2006). Managerial reforms tend to increase administrative costs and tuition fees and increase job stress. For instance, at universities in countries where performance-based management

were at the lowest levels, academics experienced a combination of high satisfaction and low stress. However, at universities in countries with high levels of performance-based management, academics experienced low satisfaction and high stress. The most sustainable universities were characterized by high levels of academic freedom, shared governance, and empowerment. Moreover, universities in these countries also had the lowest salaries, lowest workload, lowest levels of performance-based management, and generally also lower research productivity (Shin & Jung, 2014). Hence, research indicates that high levels of market orientation, managerial reforms, and production pressure seem to be associated with lower sustainability over time.

Antecedents of Burnout among Academics

Burnout is a result of chronic stress levels, and in light of the JD-R model, high job demands in combination with low job resources are the main contributors to job stress and burnout. Thus, knowledge regarding which job demands and job resources contribute to job stress and burnout among academics is relevant for understanding the process of burnout for this group of workers. As noted previously, the increase in stress levels for academics can be seen in light of the increase in managerial reforms in the higher education system. First, there is evidence that as part of the reform initiatives, managers and administrative staff have become more empowered in decision making, whereas academics are losing influence (Lyons & Ingersoll, 2010). Autonomy at work has been found to act as a mediator of the association between job demands and burnout (Fernet et al., 2013), implying that lack of participation in the work setting may increase burnout levels.

Moreover, academics often face high and conflicting expectations in their daily work. For example, they are expected to teach an increasing number of students, and apply for research funding, at the same time as they are expected to conduct innovative research and publish in high-quality journals (Winefield et al., 2014). These complex demands which are put on academics can result in role conflict, as they have limited resources and time to accomplish what is expected from them (Li, et al., 2019). Role conflict can be considered a stressor, and it is well established that role conflict relates to burnout (for review, see Lee & Ashforth, 1996). Relations between role conflict and burnout have also been demonstrated for teachers working in lower grades (Papastylianou et al., 2009). Moreover, the increased workload has resulted in prolonged working hours and work during weekends to catch up on tasks, which again has negatively influenced academic's work-life balance (Tytherleigh et al., 2005), and a substantial amount of research has also addressed the challenges involved with juggling between the roles of parenting and an academic career (e.g., Drago et al., 2006; Hardy et al., 2018; O'Meara & Campbell, 2011;

Reddick et al. 2012). Academics are heavily dependent on email both in and outside of normal working hours, which also adds to their workload, and there is evidence that email volume predicts stress among academics (Jerejian et al., 2013). In a study on Australian academics, Jerejian and colleagues (2013) found that the average number of email messages per day was close to 50 emails. Moreover, there is evidence that teaching a large number of students, in addition to supervising postgraduates, is a strong predictor of burnout among university teaching staff (Watts & Robertson, 2011). Moreover, burnout among university teachers was commensurable with levels of burnout among employees in the service sector; like healthcare and schoolteachers (Watts & Robertson, 2011), indicating that academics' working with teaching in higher education is an exposed group when it comes to burnout.

There is also evidence that job security has been declining for academics in several countries, which is further associated with high stress levels among academics (Kinman et al., 2006; Tytherleigh et al., 2005). Part of the explanation for the increase in job insecurity relates to managerial reforms that emphasize efficiency and budget cuts (Shin & Jung, 2014), which results in universities offering contract-based employment in preference to permanent positions. Ph.D. students as a group are perhaps especially vulnerable to the negative effects of job insecurity. In 2020 *The Economist* pointed out that the increase in Ph.D. students has changed the relation between supply and demand for academics. While the number of Ph.D. students increases, the number of academic positions remains the same or permanent positions are replaced by temporary ones. A study conducted by Levecque et al. (2017) among a representative sample of 3,659 Ph.D. students revealed that over 50 per cent had at least two symptoms of psychological distress and that 32 per cent were at risk of developing a psychiatric disorder, and depression in particular. In summary, all of the above-mentioned factors may relate to burnout, and in the long run, they may have detrimental effects on academics' health. Relevant antecedents of academic burnout are shown in Figure 7.1.

Moderators of Academic Burnout

There is evidence that certain factors might function as moderators in the development of burnout among academics. Gender may be one factor, and Watts and Robertson (2011) concluded from their meta-study among teaching staff in the university setting that women scored higher on the emotional exhaustion dimension, whereas men generally scored higher on the depersonalization dimension. Age is a second factor that may moderate burnout levels among academics. Results from the same study demonstrated that younger university teachers were more at risk of experiencing emotional exhaustion compared to their older colleagues. It has also been suggested that students

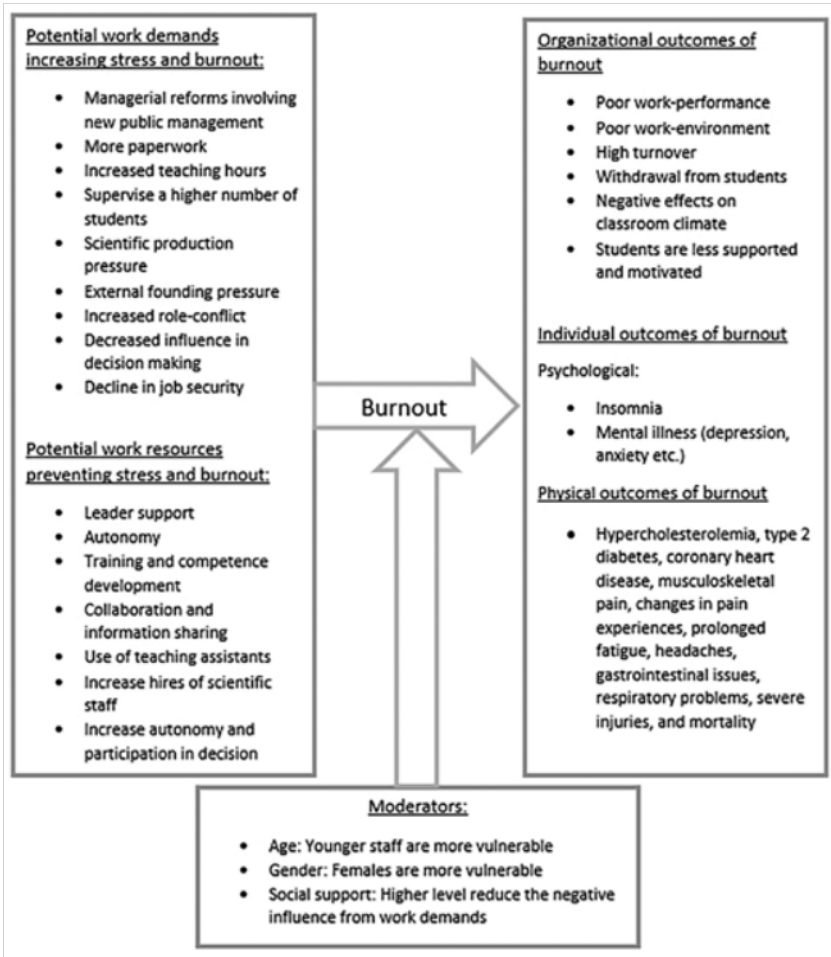

Figure 7.1 Antecedents, moderators, and outcomes of burnout

can potentially moderate perceptions of burnout for teaching staff, which is based on findings from secondary education, where low student engagement and student apathy were related to teacher burnout (Friedman, 1995). When students are disengaged, this might contribute to higher burnout levels. Many European countries are now in a situation where the number of students taking university degrees is increasing, and it is no longer only the highly qualified students who take higher education. Consequently, the student mass will be more diverse, also with regard to qualifications, which might again have

implications for student engagement. Relevant moderators are illustrated in Figure 7.1.

Do Burnout Levels Vary between Countries and Institutions?

Studies on variations in burnout for academics between different countries and institutions have been scarce. However, some focus has been given to investigating variations in job satisfaction and job stress in academic environments across cultures and countries (Shin & Jung, 2014; Bentley et al., 2013), which may also be relevant to understanding the burnout phenomenon in academics. Job satisfaction is defined as 'the pleasurable emotional state resulting from the appraisal of one's job as achieving or facilitating the achievement of one's job values' (Locke, 1996, p. 316) and meta-analyses have shown that burnout relates negatively to job satisfaction (Lee & Ashforth, 1996), implying that academics experiencing high job satisfaction will also report of lower levels of burnout. Moreover, as noted previously, burnout is a result of chronic stress levels, indicating that academics experiencing high stress levels will also be more vulnerable to burnout.

Generally, studies have shown that job satisfaction and job stress in academic environments tend to vary substantially across cultures and countries (Shin & Jung, 2014). For instance, among 19 countries included in a survey study, job satisfaction among academics varied from 47 per cent (UK) to 87 per cent (Mexico), and job stress varied between 20 per cent (Malaysia) to 68 per cent (Korea). Moreover, Shin and Jung (2014) found that these extreme differences in job satisfaction and job stress were related to various factors such as salary, pressure for publication, empowerment, academic freedom, governance, workloads, work conditions, and a feeling of affiliation. The authors further concluded that, based on the characteristics of the systems and perceptions of stress and job satisfaction, higher education systems could be classified into four groups. The first group of countries showed low satisfaction and low stress (South Africa, Portugal, and the US); the second group of countries showed high satisfaction and high stress (Japan, Finland, Canada, and Korea); the third group of countries demonstrated high job satisfaction and low stress (Mexico, Brazil, Argentina, Malaysia, Italy, and Norway); and finally, the fourth group of countries showed high stress and low job satisfaction (the UK, Australia, Hong Kong, Germany, and China).

If we take into account that high stress levels are predictors of burnout, these findings are interesting. More specifically, results from Shin and Jung's study (2014) demonstrate that the majority of countries in the low-stress categories were developing countries (South Africa, Mexico, Brazil, Argentina, and Malaysia), whereas more developed countries such as Canada, Australia, the Netherlands, Finland, Korea, and Hong Kong were in the high-stress

categories. From a sustainability perspective, and to prevent burnout, the aim would be to have high levels of job satisfaction, and moderate to low levels of job stress. Based on Shin and Jung's (2014) findings, Italy, Norway, Mexico, Brazil, Argentina, and Malaysia had the most 'sustainable profile', with high job satisfaction and low levels of job stress. Common for these countries is that they have strong teaching-oriented systems (Mexico, Brazil, Argentina, and Malaysia) or research-oriented systems (Italy and Norway). Generally, universities in European countries are considered to be more research-focused, while universities in Latin American countries are more teaching-focused (Cummings and Shin, 2013). Based on the research findings from Shin and Jung's study (2014), we may conclude that in countries where the research and teaching focus is high, academic workers might be less vulnerable to burnout as a consequence of lower stress levels.

On the other hand, recent research shows that also in countries that initially were considered 'sustainable' according to Shin and Jung's criteria (2014), sustainability is put under pressure. Considering the authors of this chapter work in a Norwegian academic context, we find it particularly interesting to highlight a recent study that was conducted among Norwegian academics. The study of interest was a qualitative study conducted among a sample of academics who were organized in the trade union referred to as the Norwegian Association of Researchers (Kuldova et al., 2020). The results from Kuldova et al.'s study (2020) are listed below and indicated negative trends within the academic system including increased stress and pressure, and depletion of academics' professional judgement.

New forms of control, such as performance measures, competence measurement, performance management, and strategic management, significantly weaken the use of professional judgement.

The academic sector in Norway is largely governed by OECD directives, EU research funding, guidelines in Horizon 2020, and the Research Council of Norway. Generally, professors and associate professors experience that the framework for professional judgement is narrowed.

Standards, measurements, risk assessments, and monitoring of the institutions are established as a form of governance where competition in the global 'knowledge market' becomes the dominant management principle. Based on this, quantifiable goals and efficiency requirements are normalized and permeate all levels within the academic system. This can be exemplified by publication requirements and counting systems.

Researchers experience an increasing distrust in the workplace, which is associated with increased control and reform measures, bureaucratization, top-down management, and initiatives to increase efficiency such as the ABE reform (initiated by the OECD). These mechanisms have a negative influence on research and education as a core business.

Political guidelines and economic cuts devalue professional judgement. This reduces confidence in the management. The staff members feel overwhelmed. Co-determination and participation are weakened by control systems.

University democracy is under pressure from commodification and market logic.

Even though more research is needed, the study conducted by Kuldova et al. (2020) indicates that also academic institutions in what previously has been referred to as sustainable countries are now under pressure. Based on Kuldova's findings we see that as demands are increasing (e.g., publication pressure, control systems), autonomy is decreasing (e.g., lack of participation and a narrowing of professional judgement). In light of the JD-R model (Bakker & Demerouti, 2007), high demands and low autonomy are determinants of stress, which eventually will lead to burnout. Thus, it is reasonable to believe that changes taking place in the Norwegian university system will eventually lead to higher levels of burnout also among academic staff in Norway.

Consequences of Burnout for the University Organization

As referred to previously, burnout can have detrimental consequences for both the physical and psychological health of the individual. However, additionally, burnout has been found to have negative consequences for the organization and relates to poor work performance (Li et al., 2015). For universities in particular, studies found that job stress was associated with turnover, low performance, and low organizational commitment (Catano et al., 2010; Gillespie et al., 2001; Ryan et al., 2012; Tytherleigh et al., 2005). High turnover rates among academics must be considered a threat to the quality of universities, as one might risk losing valuable competence.

Moreover, a general concern is that when well-being diminishes among academics, this will most likely have negative effects on student experience, and the general success of the institution as well (Gillespie et al., 2001). For instance, burnout is followed by an experience of negative emotions for the individual, and there is evidence that these negative emotions may leak into the classroom (Babad, 2009), a phenomenon that has been referred to as 'non-verbal leakages' (Ekman & Friesen, 1969. In a classroom setting, teachers will most often try to suppress negative feelings from their students (Babad, 2009). However, research has demonstrated that although individuals are capable of controlling and hiding their negative emotions through verbal behaviour, this is a lot more challenging when it comes to non-verbal behaviour. Consequently, negative emotions will have a tendency to leak into the classroom through, for instance, body language and facial expressions, which may influence the academic and social climate in the classroom negatively (Babad, 2009). Such non-verbal leakages have been demonstrated among

teachers in lower grades (Babad, 2005), and studies on teachers and students in primary school have demonstrated that teacher burnout has negative effects on classroom climate (e.g., Jensen & Solheim, 2020). Further, a longitudinal study conducted by Brouwers and Tomic (2000) revealed that burnout among teachers in secondary school negatively affected teachers' self-beliefs when it comes to inspiring students to learn, in addition to also affecting classroom management and teachers' perceived competence negatively. Moreover, it has been claimed that teachers with high levels of burnout are less interested in maintaining good relationships with their students (Cano-García et al., 2005), and there is evidence that teachers who are burned out tend to withdraw from their students, as a result of resentment towards them (Schwab, 1993).

Based on studies conducted among students in lower grades, it is reasonable to believe that burnout among academic staff in higher education institutions will have similar negative impacts on students. For instance, in the same manner as teachers in lower grades, it is also expected of academic staff in higher education that they motivate and support their students (Watts & Robertson, 2011). In situations where academic staff experience negative emotions as a result of burnout, they will try to protect the emotional resources they have available, and consequently, have fewer resources available for their students. This will most likely affect their students and the quality of teaching negatively. The organizational effects of burnout are shown in Figure 7.1.

How can Burnout be Prevented among Academics?

An essential question to be answered is how burnout can be prevented to protect academic staff from experiencing negative health effects. In light of the JD-R model, there are two main pathways to prevent burnout. The first one is to decrease the job demands which are put on the employees, whereas the second one is to increase job resources. An overview of relevant job demands and job resources for employees in academics is illustrated in Figure 7.1.

A decrease in job demands could, for instance, imply reducing the workload for academics in general by reducing the pressure for scientific publication, the number of students to supervise, and decreasing the amount of paperwork.

In addition to decreasing job demands, strengthening academics' job resources can be an effective means to protect academics from burnout. Relatedness, competence, and autonomy are basic psychological needs that are essential for the individual, and can relate to job resources in the work context (Bakker & Demerouti, 2014). Moreover, social support, competence, and autonomy are further described in work motivational theories as basic, innate, universal human psychological needs (e.g., Deci & Ryan, 1985). Social support can be defined as "the availability of helping relationships and the quality of those relationships" (Leavy, 1983., p. 5). Previous research among

academics found that support from supervisors was the factor most strongly related to academics' job satisfaction and was also negatively associated with stress (Mudrak et al., 2018), indicating that supervisor support most likely is an important job resource to prevent burnout. Competence has been defined as aspects of the job which an individual can perform (Woodruffe, 1991). Autonomy can be defined as the capacity of an agent to determine his own actions through independent choices within a system of principles and laws to which the agent is dedicated (Ballou, 1998). Autonomy on the job has been found to act as a mediator of the association between job demands and burnout (Fernet et al., 2013), implying that lack of participation in the work setting may increase burnout levels. However, as we have noted, academics are losing influence in decisions concerning their work as part of managerial reforms (Lyons & Ingersoll, 2010). Autonomy can be considered a job resource. Thus, it must be considered essential to increase academics' levels of autonomy in their work setting to prevent burnout from developing.

In addition to being important in their own right, job resources may also function as a buffer on the relationship between job demands and burnout (Bakker & Demerouti, 2007). Thus, when demands among academics are increasing, necessary resources must be provided to prevent the negative effects of high job demands. As we have discussed above, a result of the increase in managerial reforms in the university sector is that academics are required to conduct many new tasks which initially were not part of the core tasks of teaching and research. These new tasks include applying for research funding, more administrative tasks and paperwork, and more entrepreneurial and community activities. It is therefore essential that the universities provide academics with the necessary competence (and time!) to master these new tasks. An even better solution would perhaps be to provide efficient support systems (e.g., research assistants, support teams), that can help relieve the academic from these additional tasks, so they instead can focus their energy on doing research and teaching students.

DISCUSSION AND CONCLUSION

A sustainable and healthy work-life, including good health, well-being, and decent work, are goals that are stated in the 2030 Agenda for Sustainable Development. It is also worth mentioning that in Norway it is stated in the Working Environment Act § 1–1 that the work environment shall be health-promoting for all employees. A health-promoting workplace implies high job satisfaction and engagement, and the prevention of work-related illness. The Act further states that: 'one shall secure a working environment that provides a basis for a healthy and meaningful working situation, that affords full safety from harmful physical and mental influences and that has

a standard of welfare at all times consistent with the level of technological and social development of society'. The Work Environment Act further emphasizes that 'arrangements shall be made to enable the employee's professional and personal development through his/her work (..) and emphasis shall be placed on giving the employees the opportunity for self-determination, influence and professional responsibility'. In light of the Working Environment Act and Norwegian law, leaders in academia have a duty to protect their academic employees from burnout and ill-health.

However, there is solid evidence that stress among academics is alarmingly high and increasing (Reevy & Deason, 2014), which can be considered a threat to sustainability in higher education. Burnout is a result of chronic stress, and in light of the increase in stress among academics, it can be argued that academics are becoming more vulnerable to burnout. Thus, in the current chapter, we have shed light on antecedents (job demands), moderators, and job resources of burnout that may relate to burnout among academics. These factors are illustrated in Figure 7.1. Additionally, we have shed light on the consequences of academic burnout both for the individual and for the organization, also shown in Figure 7.1. Specifically, we have seen that the increase of managerial reforms in universities, including performance-based systems, budget cuts, and more efficiency-oriented management (Fredman & Doughney, 2012), have resulted in higher job demands, which again contribute to stress and burnout as part of the health-impairment process (Bakker & Demerouti, 2007). There is evidence that the education systems in countries with the highest stress levels had a higher performance-based management style compared to the countries with the lower stress levels (Shin & Jung, 2014). Still, even in countries such as Norway where universities have previously been considered to have a sustainable profile regarding job stress, job demands are now increasing, whereas academic autonomy is decreasing (Kuldova et al., 2020). These changes are a result of an increment of control and reform measures, bureaucratization, and top management efficiency, implying that academics, also in Norway, perhaps are more at risk of burnout than has previously been the case.

Based on previous research, we conclude that the main factors adding to academics' workload and stress are: high number of students, increased supervision of students, scientific production pressure, pressure to search for external funding, increased role-conflict, decreased influence in decision making, and a decline in job security. Hence, leaders of student programs, as well as other managers influencing student intakes, must consider the negative impact of increased workload before adding more students into the programs to increase profit. Moreover, local leaders at the universities should consider the total workload for their employees before pushing more work on them, such as demands to search for external funding. Generally, leaders must take an individual approach to each of their employees and adapt the number of

work tasks to ensure that demands are not too high. The employee's perceptions of high workload should also be considered. For instance, an experienced employee might manage a higher number of tasks compared to an employee with less experience. As mentioned previously, younger university teachers were more at risk of experiencing emotional exhaustion compared to their older colleagues (Watts & Robertson, 2011). This implies that the leaders need to consider the total workload at the individual level as individual workers are different. It is essential that the human resources department and management together are involved in the prevention of stress and burnout among academics. The focus on these issues should be integrated into the occupation and health programs at the universities and in leadership development activities.

The JD-R model highlights that job resources have the potential to decrease stress and burnout levels by having a direct influence on levels of burnout, and indirectly by functioning as a buffer on the demands–burnout relation. Job resources that can be considered essential are related to social support, competence, and autonomy (Bakker & Demerouti, 2014). Thus, we argue that to prevent stress and burnout from developing among the academic workforce, they must be given the possibility to restore participation in decisions relevant to their job, so their autonomy can be strengthened. With regard to competence, university management also needs to establish support systems for academics. Finally, support from management is essential. Management at different levels must take responsibility to relieve the increasing job demands which are put on academics and make sure they are given sufficient resources to conduct their work. We consider the suggested preventive actions to be essential to succeed in meeting the goals stated in the 2030 Agenda for Sustainable Development related to good health, well-being, and decent work among academic workforces.

REFERENCES

Anderson, G. (2008). Mapping academic resistance in the managerial university. *Organization*, *15*(2), 251-3270.

Babad, E. (2005). Guessing teachers' differential treatment of high-and low-achievers from thin slices of their public learning behaviour. *Journal of Nonverbal Behavior, 29*(2), 125–134.

Babad, E. (2009). *The social psychology of the classroom*. New York, NY: Routledge.

Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology, 22*(3), 309–328.

Bakker, A. B., & Demerouti, E. (2014). Job demands-resources theory. In C. Cooper & P. Chen (Eds.), *Wellbeing. A complete reference guide* (pp. 37–64). Chichester: Wiley-Blackwell.

Ballou, K. A. (1998). A concept analysis of autonomy. *Journal of professional nursing*, *14*(2), 102–110.

Bentley, P. J., Coates, H., Dobson, I. R., Goedegebuure, L., & Meek, V. L. (2013). Academic job satisfaction from an international comparative perspective: Factors associated with satisfaction across 12 countries. In P. J. Bentley, H. Coates, I. R. Dobson, L. Goedegebuure, & V. L. Meek (Eds), *Job satisfaction around the academic world* (pp. 239–262). Berlin: Springer.

Brouwers, A., & Tomic, W. (2000). A longitudinal study of teacher burnout and perceived self-efficacy in classroom management. *Teaching and Teacher Education, 16*(2), 239–253.

Cameron, K. S., & Quinn, R. E. (1999). *Diagnosing and changing organizational culture, based on the competing values framework*. Boston, MA: Addison-Wesley Publishing Company, Inc.

Cano-García, F. J., Padilla-Muñoz, E. M., & Carrasco-Ortiz, M. Á. (2005). Personality and contextual variables in teacher burnout. *Personality and Individual Differences*, *38*(4), 929–940.

Canu, I. G., Marca, S. C., Dell' Oro, F., Balázs, Á., Bergamaschi, E., Besse, C., ... & Wahlen, A. (2021). Harmonized definition of occupational burnout: A systematic review, semantic analysis, and Delphi consensus in 29 countries. *Scandinavian Journal of Work, Environment & Health*, *47*(2), 95.

Catano, V., Francis, L., Haines, T., Kirpalani, H., Shannon, H., Stringer, B., & Lozanzki, L. (2010). Occupational stress in Canadian universities: A national survey. *International Journal of Stress Management, 17*(3), 232.

Clark, B. R. (1986). *The higher education system: Academic organization in cross-national perspective*. Berkeley, CA: University of California Press.

Cummings, W. K., & Shin, J. C. (2013). Teaching and research in contemporary higher education: An overview. *Teaching and research in contemporary higher education: Systems, activities and rewards*, 1–12.

Deci, E. L., Ryan, R. M., Deci, E. L., & Ryan, R. M. (1985). Conceptualizations of intrinsic motivation and self-determination. *Intrinsic motivation and self-determination in human behavior*, 11–40.

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.

Drago, R., Colbeck, C. L., Stauffer, K. D., Pirretti, A., Burkum, K., Fazioli, J., & Habasevich, T. (2006). The avoidance of bias against caregiving: The case of academic faculty. *American Behavioral Scientist, 49*(9), 1222–1247.

Ekman, P., & Friesen, W. (1969). Non-verbal leakages and clues to deception. *Psychiatry, 32*(1), 88–106.

Fernet, C., Austin, S., Trépanier, S.-G., & Dussault, M. (2013). How do job characteristics contribute to burnout? Exploring the distinct mediating roles of perceived autonomy, competence, and relatedness. *European Journal of Work and Organizational Psychology, 22*(2), 123–137.

Fredman, N., & Doughney, J. (2012). Academic dissatisfaction, managerial change and neo-liberalism. *Higher Education, 64*(1), 41–58.

Friedman, I. A. (1995). Student behavior patterns contributing to teacher burnout. *The Journal of Educational Research, 88*(5), 281–289.

Gillespie, N. A., Walsh, M., Winefield, A. H., Dua, J., & Stough, C. (2001). Occupational stress in universities: Staff perceptions of the causes, consequences and moderators of stress. *Work & Stress, 15*(1), 53–72.

Hardy, A., McDonald, J., Guijt, R., Leane, E., Martin, A., James, A., ... & Green, B. (2018). Academic parenting: Work–family conflict and strategies across child age, disciplines and career level. *Studies in Higher Education, 43*(4), 625–643.

Jerejian, A. C., Reid, C., & Rees, C. S. (2013). The contribution of email volume, email management strategies and propensity to worry in predicting email stress among academics. *Computers in Human Behavior, 29*(3), 991–996.

Kinman, G., & Jones, F. (2008). A life beyond work? Job demands, work-life balance, and wellbeing in UK academics. *Journal of Human Behavior in the Social Environment, 17*(1–2), 41–60.

Kinman, G., Jones, F., & Kinman, R. (2006). The well-being of the UK academy, 1998–2004. *Quality in Higher Education, 12*(1), 15–27.

Kuldova, T. Ø., Drange, I., Enehaug, H., Falkum, E., Underthun, A., & Wathne, C. T. (2020). Faglig skjønn under press. Fire casestudier og en sammenfatning.

Leavy, R. L. (1983). Social support and psychological disorder: A review. Journal of Community Psychology, 11(1), 3–21.

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.

Levecque, K., Anseel, F., De Beuckelaer, A., Van der Heyden, J., & Gisle, L. (2017). Work organization and mental health problems in PhD students. *Research Policy, 46*(4), 868–879.

Li, X., Kan, D., Liu, L., Shi, M., Wang, Y., Yang, X., & Wu, H. (2015). The mediating role of psychological capital on the association between occupational stress and job burnout among bank employees in China. *International journal of environmental research and public health, 12*(3), 2984–3001.

Locke, E. A. (1996). What is job satisfaction? *Organizational Behaviour and Human Performance*, *4*(4), 309–336.

Locke, W., & Bennion, A. (2013). Satisfaction in stages: The academic profession in the United Kingdom and the British Commonwealth. In *Job satisfaction around the academic world* (pp. 223–238). Springer.

Lyons, M., & Ingersoll, L. (2010). Regulated autonomy or autonomous regulation? Collective bargaining and academic workloads in Australian universities. *Journal of Higher Education Policy and Management, 32*(2), 137–148.

Maslach, C., Jackson, S. E., & Leiter, M. P. (1996). *MBI Maslach Burnout Inventory*: CPP, Incorporated.

Maslach, D., Jackson, S., Leiter, M., Schaufeli, W., & Schwab, R. (1986). Maslach Burnout Inventory Manual, General Survey, Human Services Survey, Educators Survey and Scoring Guides. Menlo Park, CA: Mind Garden Inc.

Mudrak, J., Zabrodska, K., Kveton, P., Jelinek, M., Blatny, M., Solcova, I., & Machovcova, K. (2018). Occupational well-being among university faculty: A job demands-resources model. *Research in Higher Education, 59*(3), 325–348.

O'Meara, K., & Campbell, C. M. (2011). Faculty sense of agency in decisions about work and family. *The Review of Higher Education, 34*(3), 447–476.

Papastylianou, A., Kaila, M., & Polychronopoulos, M. (2009). Teachers' burnout, depression, role ambiguity and conflict. *Social Psychology of Education, 12*(3), 295–314.

Reddick, R. J., Rochlen, A. B., Grasso, J. R., Reilly, E. D., & Spikes, D. D. (2012). Academic fathers pursuing tenure: A qualitative study of work-family conflict, coping strategies, and departmental culture. *Psychology of Men & Masculinity, 13*(1), 1.

Reevy, G. M., & Deason, G. (2014). Predictors of depression, stress, and anxiety among non-tenure track faculty. *Frontiers in Psychology, 5*, 701.

Ryan, J. F., Healy, R., & Sullivan, J. (2012). Oh, won't you stay? Predictors of faculty intent to leave a public research university. *Higher Education*, *63*(4), 421–437.

Salvagioni D. A. J., Melanda, F. N., Mesas, A. E., González, A. D., Gabani, F. L., & Andrade, S. M. de. (2017). Physical, psychological and occupational consequences of job burnout: A systematic review of prospective studies. *PLOS ONE 12*(10).

Schaufeli, W. (2021). The burnout enigma solved? *Scandinavian Journal of Work, Environment & Health*, *47*(3), 169.

Schaufeli, W. B., Desart, S., & De Witte, H. (2020). Burnout Assessment Tool (BAT) – Development, Validity, and Reliability. *International Journal of Environmental Research and Public Health, 17*(24), 9495. MDPI AG. Retrieved from http://dx.doi .org/10.3390/ijerph17249495.

Schaufeli, W. B., & Enzmann, D. (1998). *The burnout companion to study and research: A critical analysis.* London: Taylor & Francis.

Schaufeli, W. B., & Taris, T. W. (2014). A critical review of the Job Demands-Resources Model: Implications for improving work and health. In *Bridging occupational, organizational and public health* (pp. 43–68): Springer.

Schonfeld, I. S., & Bianchi, R. (2016). Burnout and depression: two entities or one? *Journal of Clinical Psychology, 72*(1), 22–37.

Schwab; R. L. (1993). Burnout in education: Special supplement. In: C. Maslach, and S. E. Jackson (Eds), *Maslach Burnout Inventory Manual*, 2nd edn. Palo Alto, CA: Consulting Psychologists Press.

Seldin, P. (1987). Research findings on causes of academic stress. *New Directions for Teaching and Learning, 1987*(29), 13–21.

Shin, J. C., & Jung, J. (2014). Academics job satisfaction and job stress across countries in the changing academic environments. *Higher Education, 67*(5), 603–620.

The Economist. The disposable academic: Why doing a PhD is often a waste of time. Downloaded December 16th, 2020.

Tytherleigh, M. Y., Webb, C., Cooper, C. L., & Ricketts, C. (2005). Occupational stress in UK higher education institutions: A comparative study of all staff categories. *Higher Education Research & Development, 24*(1), 41–61.

Watts, J., & Robertson, N. (2011). Burnout in university teaching staff: A systematic literature review. *Educational Research, 53*(1), 33–50.

Winefield, H. R., Boyd, C., & Winefield, A. H. (2014). Work-family conflict and well-being in university employees. *The Journal of Psychology, 148*(6), 683–697.

Woodruffe, C. (1991). Competent by any other name. *Personnel Management*, *23*(9), 30–33.

Zábrodská, K., Mudrák, J., Šolcová, I., Květon, P., Blatný, M., & Machovcová, K. (2018). Burnout among university faculty: The central role of work–family conflict. *Educational Psychology, 38*(6), 800–819.