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Work engagement in health professions education*

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ABSTRACT

Work engagement deserves more attention in health professions education because of its positive relations with personal well-being and performance at work. For health professions education, these outcomes have been studied on various levels. Consider engaged clinical teachers, who are seen as better clinical teachers; consider engaged residents, who report committing fewer medical errors than less engaged peers. Many topics in health professions education can benefit from explicitly including work engagement as an intended outcome such as faculty development programs, feedback provision and teacher recognition. In addition, interventions aimed at strengthening resources could provide teachers with a solid foundation for well-being and performance in all their work roles. Work engagement is conceptually linked to burnout. An important model that underlies both burnout and work engagement literature is the job demands-resources (JD-R) model. This model can be used to describe relationships between work characteristics, personal characteristics and well-being and performance at work. We explain how using this model helps identifying aspects of teaching that foster well-being and how it paves the way for interventions which aim to increase teacher's well-being and performance.

Introduction

Education in health professions has steadily progressed from being a sideshow to patient care and research, to being recognized as the fundament for sustainable and high quality health care. An important aspect of this progression has been the professionalization of the teaching task, fulfilled by nurses, physicians, scientists and other health professionals alike. As the role of the teacher continues to evolve with each innovation in curricula and teaching methods, so do faculty development programs, to ensure teachers are equipped with the right skills and knowledge to perform well.

Over the past few decades, it has become clear that high performance is also – sometimes strongly – affected by well-being. An absence of well-being, for example burnout, may lead to poorer than average performance, while above average well-being, such as work engagement, is associated with above average performance. In 2009, the *Lancet* published an article about physician well-being and why it should be a key quality indicator in patient care, based on this premise (Wallace et al. 2009). We suggest teacher well-being deserves the same kind of attention, considering how important teachers are for the quality of health professions education.

The aim of this AMEE Guide, therefore, is to provide a concise overview of the literature on positive well-being of teachers in health professions education. In a wealth of research, positive well-being has been conceptualized as work engagement (Bakker 2011). Work engagement as a measurable concept has been developed and widely studied in occupational health psychology research, gaining

prominence in the early 2000s. In the past decade, the body of literature on work engagement in the health professions education context has steadily grown as researchers began to study the antecedents and consequences of work engagement for this context specifically. We aim to provide suggestions for increasing work engagement of teachers and faculty in health professions education practice and directions for future research.

What is work engagement?

One of the earliest descriptions of engagement as a psychological concept focused on personal engagement and the degree of investment of the self in work (Kahn 1990). Subsequent research largely remained focused on burnout and illness and researchers were called upon to include positive outcomes as well (Seligman and Csikszentmihalyi 2000). The concept of engagement was then revisited and adopted into the broader operationalization of work engagement as a distinct and positive form of well-being alongside burnout (Schaufeli et al. 2002). Work engagement is defined as experiencing high levels of vigor, dedication and absorption (Bakker 2011).

The job demands resources model

An important model that underlies both burnout and work engagement literature is the Job Demands-Resources (JD-R) model (Bakker and Demerouti 2007) (Figure 1). The JD-R model describes the relations between work characteristics, work outcomes (i.e. health, well-being and performance)

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Practice points

- Health care professionals who are engaged in their work are more resilient, dedicated and absorbed. They experience less burnout and are healthier.
- Work-engaged professionals are pro-active in attaining work goals and striving for excellence. Research reports better performance of work-engaged professionals in both teaching and patient care.
- Both resources in work (e.g. performance feedback or autonomy) and personal resources (e.g. optimism or self-efficacy) will boost work engagement. Resources help achieve work goals, stimulate personal development and help cope with demands.
- There is a considerable individual variation in both the appreciation and need for specific job resources as well as the extent to which individuals are equipped with personal resources, suggesting tailored interventions are required.
- The engagement of health care professionals often turns out to differ with regard to the various work roles they perform (care provider, teacher, researcher), suggesting role-specific interventions are required.
- In order to facilitate health care professionals in their well-being and to enable optimal performance and sustainable practice, health care organizations should foster stimulating job resources and development of personal resources for a highly engaged workforce.
- As individuals with more personal resources are able to generate more job resources, we call on educators and students to continue to pay explicit attention to the development of personal resources.

and personal characteristics. Whereas earlier versions of the model focused primarily on burnout as outcome variable, later versions also included other outcomes (i.e. work engagement) and more antecedents (such as work-related and personal resources). The JD-R model provides a heuristic framework for relating a wide variety of job characteristics to a range of outcomes (Taris and Schaufeli 2016).

Definitions of the concepts within the JD-R model

Job demands refer to “those physical, psychological, social, or organizational aspects of the job that require sustained physical and/or psychological (i.e., cognitive or emotional) effort and are therefore associated with certain physiological and/or psychological costs” (Schaufeli and Bakker 2004). Studied examples include time pressure, work-home conflict or emotional demands – which could be dealing with death and dying for health professionals.

Job resources have been defined as “those physical, psychological, social, or organizational aspects that either/or (1) reduce job demands and the associated physiological

and psychological costs; (2) are functional in achieving work goals; (3) or stimulate personal growth, learning and development” (Schaufeli and Bakker 2004). Studied examples, both in general as well as in health professions education, include autonomy, support from colleagues and supervisors and performance feedback – but anything aligning with the above definition could function as a resource.

A central assumption of the JD-R model is that these job demands and job resources evoke two relatively independent psychological processes that determine well-being: the negative health impairment process and the positive motivational process. According to the health impairment process high job demands may exhaust employee’s mental and physical resources and may therefore lead to burnout and health problems (Demerouti and Bakker 2001). Secondly, according to the motivational process, the availability of job resources has motivational potential and leads to commitment, work engagement and high performance (Schaufeli and Bakker 2004; Bakker and Demerouti 2007).

The JD-R model has grown more complex in recent years. The most important addition to the model is the distinction between characteristics of the job (i.e. the job demands and resources) and what the individual may bring into their work. These personal aspects include personal resources (Xanthopoulou et al. 2007), personality traits (McCrae and Costa 1987; Ozer and Benet-Martínez 2006) and actions (Tims and Bakker 2010). Personal resources are defined as “aspects of the self that are generally linked to resiliency and refer to individuals’ sense of their ability to control their environment successfully’ (Hobfoll et al. 2003). According to Hobfoll (1989) people strive to obtain, retain, protect and foster resources and when people develop a resource surplus, they are likely to experience positive well-being. Applied to health professions education: teachers who feel in control of their work and work environment, will shape their work and work environment in a way that it becomes enjoyable and relatively stress free.

The JD-R model as focused on work engagement

A stronger focus on work engagement in research brought nuance to the relationship between demands and resources and further emphasized both job and personal resources as drivers of well-being. A key overview was published in 2011 (Bakker 2011). In relation to work engagement, job demands do not affect work engagement directly (as they do for burnout) but they moderate the positive relationship between personal and job resources and engagement: the driving effect of resources on work engagement becomes stronger when job demands are high (Bakker et al. 2007) (Figure 2). In particular, demands may turn into challenges when resources are high (Petrou et al. 2012; Bakker 2014) which leads to positive short-term effects on work engagement. However, long-term effects could still be negative due to the straining effect of such demands (LePine et al. 2005). This adds a layer of complexity to the JD-R model whereby available resources may always be as high as possible, while there appears to be an optimum for the level of perceived demands. People then differ as to what

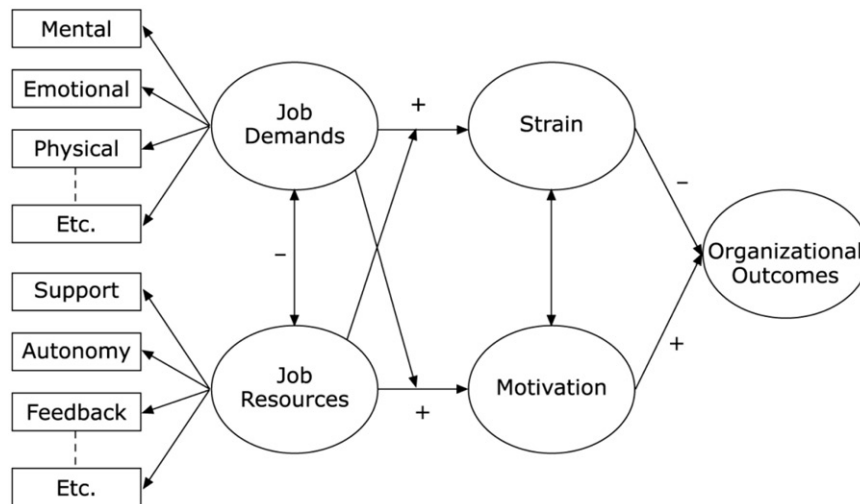


Figure 1. Job demands-resources model Bakker and Demerouti (2007).

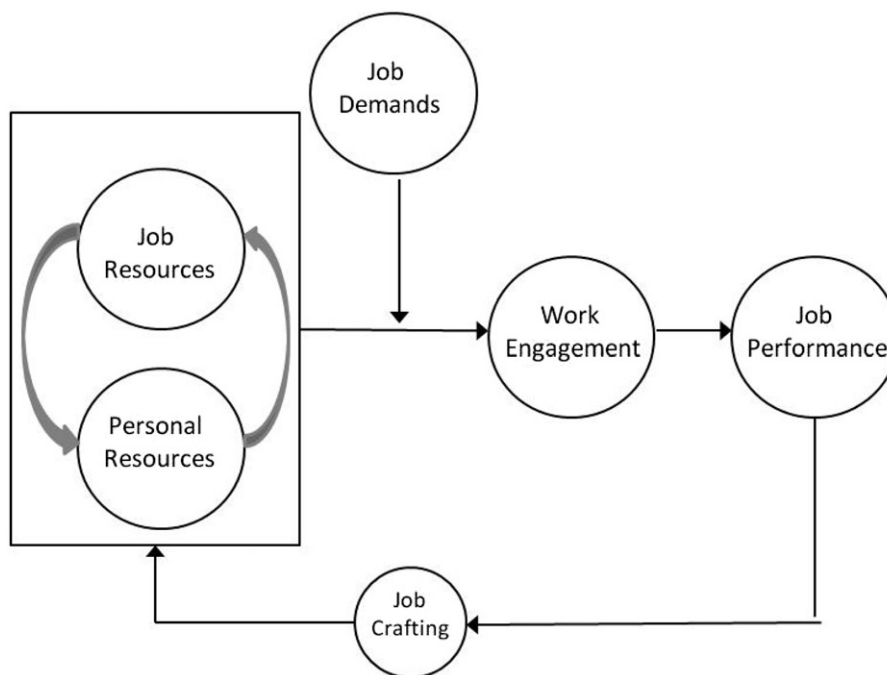


Figure 2. Work engagement model Bakker (2011).

resources are valued most and to the extent that demands are challenging or hindering (Bakker 2014).

Consequences of work engagement

A usual way of describing the consequences of work engagement is by discerning motivational outcomes and job-related outcomes (Bakker et al. 2014).

Motivational outcomes include being proactive and taking initiative (Sonnentag 2003; Hakanen et al. 2008; Salanova and Schaufeli 2008), setting a high bar, feeling competent and striving for quality (Bakker 2011), and displaying helpful behavior, friendliness and being cooperative (Babcock-Roberson and Strickland 2010; Bakker 2011). Engaged people experience positive emotions and process information better (Hakanen and Schaufeli 2012). And, they are healthy and have low rates of absenteeism (Schaufeli et al. 2009).

Of particular interest is that these motivational outcomes are also related to spillover to coworkers. Individuals within

engaged teams, experience higher levels of engagement, even when corrected for individual differences in perceived demands and resources (Bakker et al. 2006). And perceived present work engagement also positively affects future work engagement within individuals, i.e. employees engaged to their work actively shape their work to generate further resources, that, in turn, affect future work engagement (Hakanen et al. 2008). When people actively shape their work, this is called job crafting (Wrzesniewski and Dutton 2001). When individuals engage in job crafting, they seek social or structural resources or make changes in their perceived demands by seeking challenges or avoiding hindrances (Tims and Bakker 2010).

The job-related outcomes are more diverse. A well-studied consequence is better in-role performance (Halbesleben 2010). In-role performance is defined as those officially required outcomes and behaviors that directly serve the goals of the organization (Motowidlo and Van Scotter 1994). Think of primary school teachers who perform better in teaching (Bakker and Bal 2010) or research

scientists who report doing their job as researcher well (Chughtai and Buckley 2011). Engagement also has a positive effect on extra-role performance, i.e. the aspects of work which often cannot be found in job descriptions or formal expectations (MacKenzie et al. 1991). Similarly, work engagement promotes commitment to an organization and decreases turn-over intentions (Halbesleben 2010).

Related concepts and choice of literature

Our aim for this guide is to focus mostly on work engagement and we will only briefly include literature on burnout where necessary, as they are both situated within a broader research domain concerned with occupational well-being and performance at work.

We are explicitly not discussing the following related topics. Job satisfaction has been excluded as it is regarded as a *passive* state at work whereas work engagement is an *active* state towards work (Bakker 2011). In direct comparison between satisfaction and engagement, satisfied people generally perform well, but less so than those engaged to work (Christian et al. 2011).

Work engagement refers to a state that is relatively stable over a longer period of time and therefore different than flow, which is defined as “working concentrated for a few hours at a time” (Schaufeli and Bakker 2004).

We chose not to elaborate on stress and coping with stress, especially of students in the undergraduate phase of health professions education (Sheu et al. 2002; LeBlanc 2009; Chan et al. 2009; DeMaria et al. 2010), to maintain a focus on the teaching role and positive well-being in this role.

The literature we will discuss in this Guide is based on several criteria. They represent fundamental work within the broader research domain of occupational well-being and its effects on performance at work; they relate to work engagement either in health professions education or, only where informative for the teacher role, in health professional's other roles; or they represent key literature from other topics in health professions education which could benefit from an explicit link to work engagement. While work engagement in general has been studied globally, a relatively large amount of literature on work engagement specifically in health professions education originates from the Netherlands. The generalizability and transferability of these articles has been discussed within these articles, published in peer-reviewed, international journals.

Work engagement and the health profession's education context

An important assumption of the JD-R model is that although the specific work characteristics of various occupations may differ, they can always be modeled in the before mentioned two broad categories, job demands and job resources. The JD-R model has been found valid across countries and occupations, including invariance for age and gender (Llorens et al. 2006; Korunka et al. 2009). However, these studies have also shown that the strength of the effect of demands and resources may differ between occupations and that additional demands and resources may exist. In the following sections we will elaborate on

findings on demands and resources in health professions education.

Job resources in the teaching role

From one study on resources in the teacher role that included higher education teachers we learn that the ‘social climate’, ‘innovative climate’ and ‘supervisory support’ are important job resources, in addition to satisfaction with provided information and level of job control (i.e. autonomy) (Hakanen et al. 2006). The resource of ‘provided information’ relates to the information teachers need to provide a good class or lecture, such as the previous experience of students and required learning goals.

Although many health professions teachers may not experience these resources because patient care and research often take priority, both autonomy and participation in decision making (i.e. job control) positively influence work engagement for clinical teaching (van den Berg et al. 2016).

Performance feedback is one of the previously known resources positively affecting work engagement in medical education (van den Berg et al. 2013). Additional job resources found in this study (van den Berg et al. 2013) were related to the learning process i.e. ‘being able to teach with an emphasis on the learning process’, ‘teaching small groups’ and to professional autonomy i.e. ‘freedom to determine how I teach’. These findings mirror the results from previous research on the importance of feedback and professional development as drivers of work engagement for teachers (Bakker and Bal 2010). Furthermore ‘interaction with students’, ‘recognition for their teaching task’ and ‘faculty development’ promote work engagement to classroom teaching as well as clinical teaching (van den Berg et al. 2015).

One resource that explicitly emerged as important in multiple studies on well-being is social support. Social support can prevent stress and stressful events (Cohen and Wills 1985). It can specifically drive work engagement by providing a sense of relatedness and competence (van den Berg et al. 2016). A lack of support has been related to burnout, as studied among residents (Prins et al. 2007). In the complexity of health care and in health professions education, support for the teaching role is not only provided by fellow teachers or educators but could similarly be provided between health care workers even if the provider of support is not involved with teaching (van den Berg et al. 2016).

Job resources in the clinical role

Several studies have focused on the job resources that may be experienced during clinical work. While it remains to be studied if these hold equally true for the teaching role, they directly affect well-being and thereby indirectly how clinicians may feel in their teaching role.

Mastenbroek et al. (2014) studied predictors of burnout and engagement amongst young veterinary professionals, finding ‘opportunities for professional development’ and ‘skill discretion’ (the breadth of skills usable in work) to be the strongest predictors of work engagement. Acting in different roles might be perceived as a job resource

because it appeals to different skills. As mentioned, support from fellow residents and patients appeared to be an important resource for medical residents and this is important both for their work in patient care as well as for them as learners (Prins et al. 2007).

Role-interaction

In his overview article on work engagement, Bakker (2011) begins with the following question: 'Do you remember the last time you were really fascinated by a speaker who was explaining very energetically and passionately?' If we were to change 'speaker' with 'teacher' and think back on any classes we followed, how many teachers would spring to mind?

In the medical context, these teachers probably were engaged physicians and engaged researchers, enthused by being allowed to speak about their work or their research. Recent studies show how intricate these role-differences and role interactions are. Repeatedly it is found that physicians and researchers alike experience higher levels of work engagement for their physician and research work than for teaching (van den Berg et al. 2013, 2016; Scheepers et al. 2014). Although work engagement is positively related to performance, being engaged for one role does not automatically result in better performance in another role as was shown by Scheepers et al. (2014). Physicians who were highly engaged for patient care were not always recognized by residents as better teachers, while those who were highly engaged for teaching were indeed recognized both as a better supervisor and a better role model. It is important to acknowledge that work characteristics that serve as a job resource in one role/work environment might be absent in another role/work environment. This might result in variability of professional's work engagement in different roles. Looking carefully to individual needs regarding valued job resources in one role might be the key to improving work engagement in other roles (van den Berg et al. 2015).

How to support work engagement in medical education

Quantifying baseline levels and intervention outcomes

For both research and practice, measures have been developed for various parts of the JD-R model. They are useful for measuring baseline levels and perhaps improvement after interventions.

The most recently validated scale for work engagement is the nine-item Utrecht work engagement scale, measuring vigor, dedication and absorption levels (Schaufeli et al. 2006). It measures work engagement on self-assessed scale of being never (zero) to daily/always (six) engaged to work. The questionnaire can be administered to assess a longer period of time, but if preferred also for daily measurements by adapting the wording of questions to reflect the period of time of interest (Bakker 2014). This is useful to distinguish between immediate and longer term effects of interventions.

Similarly, questionnaires have been developed for common resources (Veldhoven et al. 2002) and job crafting (Tims et al. 2012). When measuring job resources in a

specific work-environment, one should keep in mind that customization of the resources to be measured is one of the strengths of the JD-R model. Mastenbroek et al. (2014) discuss the construction of a customized questionnaire on the basis of the JD-R model.

Interventions aimed at increasing job resources

Job resources need to be considered both situationally as well as individually (van den Berg et al. 2015). Interventions aimed at improving these job resources might be targeted through faculty development tailored to individual needs.

Faculty development

Within work engagement literature opportunities for professional development are often not described in much detail. However, there is a major field of research which concerns itself with the professional development of teachers, often labeled faculty development.

Participants of faculty development programs reported increased knowledge of educational principles, gains in teaching skills, positive changes in attitudes toward faculty development and teaching (Steinert et al. 2006). These findings resemble personal resources such as increased self-efficacy. Another of the reported, positive, outcomes was related to changes in organizational practice and the establishment of collegiate networks – which may lead to social support, also a known job resource. Faculty development programs, if well designed, thus contribute to strengthening job and personal resources and thereby to work engagement and performance. Including well-being as an intended and explicit outcome of faculty development program may result in more permanent changes in practice.

Improving social support through faculty development

Faculty development programs can connect teachers and educators so that meaningful relationships will be established. Besides a common goal, it is necessary that members of such a community share activities to actually feel connected (Wenger 1998; Akkerman et al. 2008). Paying specific attention to these concepts in faculty development programs could further enhance social support and the resultant feeling of relatedness and competence.

Feedback on performance as a job resource

Like faculty development, feedback has been studied extensively in medical education as well. But not all feedback has a directly positive effect on well-being. Feedback may lead to positive emotions, with positive effects on work behavior, and negative emotions with detrimental effects on work and attitude towards work (Belschak and Den Hartog 2009). This suggests certain forms of feedback may not be a resource but a demand. Positive emotions may arise from feedback when the provider does so in a supportive and constructive way (Belschak and Den Hartog 2009). While well-being has not been an outcome in feedback research within health professions education, research into its effect on learning and performance gives some indication on the conditions in which feedback is perceived as supportive and constructive. A focus on narrative

feedback seems important in this context (Boerboom et al. 2011; van der Leeuw et al. 2013). In short, what is known as high quality feedback within health professions education may equally count as the right kind of feedback that may also improve well-being.

Recognition and appreciation of the teaching task

Recognition of the teaching task has been described as a job resource by teachers in medical education (van den Berg et al. 2015). It has often been suggested that teaching awards may fulfill this function. A 2012 literature review suggested that evidence for the positive effect of teaching awards is scarce (Huggett et al. 2012). The authors actually concluded that in addition to potential positive consequences, negative consequences were reported in literature. This duality was also described in terms of well-being by van den Berg et al. (2015). This once again underlines that an intervention aimed at an increase of professionals' work engagement by providing recognition has to be tailored to the individual.

Interventions aimed at increasing personal resources

Personal resources play an important role in work engagement and therefore in performance in several ways (Bakker et al. 2004; Mastenbroek et al. 2012). A resourceful work environment is associated with employees having more personal resources, and these employees appear to be more engaged and involved more in extra-role behavior.

A study among recently graduated veterinarians showed that participants on a one year resources development program significantly improved their self-efficacy and reflective behavior (Mastenbroek et al. 2015). Participants mention that the reflective process made them aware of their limiting beliefs, and that they had a choice to whether they allowed these beliefs to determine their behavior or not (Mastenbroek et al. 2015).

A type of intervention frequently used in educational settings for development of (learner's) personal resources is peer coaching meetings, though it is known by various names (i.e. peer (group) meetings, peer-group learning, small-group curriculum), the effect of this type of education has been subject to research regularly. Peer meetings in which personal experiences from professional practice were discussed proved to foster the development of reflection skills (Schaub-de Jong et al. 2009). An intervention for physicians based on facilitated group discussions among physicians with attention to mindfulness, reflection, shared experiences and the promotion of collegiality and community at work through small-group learning, improved meaningfulness in work and work engagement and reduced overall burnout. Although this was not aimed at education specifically, it could be a helpful intervention for health care professionals overall as it contains elements of both job resources (i.e. promoting collegiality) as well as personal resources (mindfulness and reflection) (West et al. 2014).

Tying different interventions together: gain spirals

As resources and work engagement affect coworkers, finding those teachers and faculty who fulfill a central role in a

curriculum may be the most sensible targets to include first (Bakker et al. 2006).

Additionally, because of the positive gain spirals between job resources, work engagement, personal resources, and performance within individuals (Hakanen et al. 2008), any target audience for interventions must also include especially those with lower work engagement, or who are new to being a teacher, as they have most to gain and need to be enabled to fuel their own improvements.

Future developments

As research continues on all aspects of the work engagement model, we keep learning what is specific for this context and what unique challenges remain. The following sections highlights a few leads for future research.

Providing job resources in the complexity of various roles

One of the areas of interest, in our view, is the convolution of being a researcher, care provider and teacher, among other roles. Many teachers will have to balance at least two of these roles. We have not gained much insight yet in how teachers themselves find the right balance in this complexity – we do know teachers may find this difficult (Kumar et al. 2011; van den Berg et al. 2015). We know teachers will experience different levels of work engagement in their various roles (van den Berg et al. 2013; Scheepers et al. 2014; van den Berg et al. 2016) and it seems this will affect their job crafting quite strongly, up to the point that work engagement for one role, will lessen job crafting in other roles. This could potentially mean that, as the role with the highest engagement continues to spiral upwards, engagement for other roles will lag behind. Research on determinants of work engagement in the various roles might clarify how these roles can best be combined.

Attention for personal resources of students

Development of personal resources might best be stimulated during undergraduate and postgraduate education. In that period of huge personal and professional growth, personal resources probably are the most manageable. And on top of this, personal resources have beneficial effect irrespective of the future work domain. The beneficial effect of, for example, conscientiousness on performance is probably not unique for any profession within the health professions spectrum. How developing these personal resources is best done in our context (in healthcare and also in undergraduate and postgraduate education) may be the most pressing question that needs to be addressed. Students sometimes are less eager to work on personal development than they are to increasing professional knowledge and skills. A study among veterinary medical students in the UK revealed that students had other priorities regarding important personal qualities and skills during undergraduate education than once they were working in professional practice. On top of this, it has proved particularly difficult to measure effectiveness of interventions

during periods of autonomous personal growth (Rhind et al. 2011).

Monitoring well-being and preventing deterioration

Another topic worth of further exploration is how employers/hospital organizations could monitor and prevent their health professionals from becoming less or disengaged in their work. Currently, international accreditation standards also prescribe hospitals to manage matters of individual well-being (Joint Commission 2009). Therefore, work engagement could also be a continuous topic of reflection in supervisory conversations between clinical supervisors and their residents or any other health professions education setting.

Leads for job crafting

Individual qualities in job crafting could equip faculty with the capacity to adjust job demands and resources to individual ambitions. Job crafting qualities can be taught and optimized in specific interventions, which ultimately increase well-being (Demerouti 2014). Future research may study how effectiveness of these interventions could be strengthened, for example by incorporating research on long-term behavioral change, e-health and personalized coaching.

Conclusions

Our previous chapter highlighted there is still a lot left to be studied. However, the extensive research on work engagement already conducted both within and outside of the health professions education provides plenty of evidence to start working on building engagement within health care professions education. At the very least, make well-being a talking point. Whether it is at the highest level of boards or just between colleagues, knowing what drives work engagement for teaching and ensuring these resources are provided, even only incidentally, is an excellent fundament for building an engaged generation of health professions educators.

Disclosure statement

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of this article.

Notes on contributors

Joost W. van den Berg, MD, is a PhD student, the subject of which is related to the specifics of work engagement within health professions education. He has a special interest in the relationship between patient care, teaching and research.

Nicole J. J. M. Mastenbroek, DVM, PhD, is a veterinarian by training. Her research PhD relates to the well-being and performance of young veterinary professionals with a special interest in the role of personal resources. This resulted in a PhD in 2014. While continuing this research she puts the results into practice by designing education that aims to better prepare students for future practice by equipping them with more personal resources.

Renée A. Scheepers, PhD, obtained her PhD on the Professional Performance of physicians in their roles as care provider and

supervisor in relation to their personality and work engagement in 2016. She now focuses on designing interventions for better support of physician well-being, making good use of her psychology background.

Professor A. Debbie C. Jaarsma, DVM, PhD, is a veterinarian by training and has been conducting, supervising and leading research on various topics within health professions education on an international level for many years. She is now the director of the Center for Education Development and Research in Health Professions at the University Medical Center in Groningen.

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