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Kristin Haugskott Tiller

Trondheim, June 2018

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SAMMENDRAG

Som en positiv antitese til det mer velkjente konseptet utbrenthet, har arbeidsengasjement blitt stadig mer i fokus i forskning på arbeidshelse. Empiriske funn tyder på at det å fremme engasjement på arbeidsplassen fører til en rekke positive utfall, både for den ansatte og for organisasjonen, blant annet at sykepleiere ønsker å forbli i jobbene sine. Videre fører dette til stabilitet av sykepleierbemanningen på arbeidsplassen, noe som kan være av stor betydning med henblikk på store nedskjæringer i helsetjenesten i mange land i de seneste år. Som den største gruppen i helsetjenesten, har dette gått ut over sykepleiere i form av kutt i sykepleierstillinger og økt arbeidspress, hvor vi i tillegg ser en økende tendens til at stadig flere sykepleiere ønsker å slutte i jobbene sine.

Det fins mye empirisk kunnskap om organisatoriske faktorer som kan påvirke arbeidsengasjement eller mangel på sådant. Det er derimot lite forskning på hvordan personlige faktorer påvirker arbeidsengasjement og hvorfor det er sånn at enkelte er veldig engasjerte i jobben sin, hvor andre som jobber under samme arbeidsforhold er mindre engasjerte. I denne masteroppgaven er det fokus på personlighet og mestringsstrategier som personlige faktorer.

Masteroppgaven består av to artikler. Den første er en teoriartikkel som presenterer konseptene arbeidsengasjement, personlighet og mestring, samt tilhørende teori. Conservation of Resource theory forklarer dynamikken mellom individets opprettholdelse, tilegnelse eller tap av ressurser, og helseutfall dette kan gi. Videre skisserer Job Demands-Resorce theory at både jobbressurser og personlige ressurser påvirker arbeidsengasjement. I tillegg blir Temperament and Character Theory og Stress and Coping Theory forklart henholdsvis i forhold til personlighet og mestring. Med dette som teoretisk bakgrunn blir sykepleieres personlige ressursers relasjon til arbeidsengasjement diskutert.

Den andre artikkelen presenterer en empirisk kvantitativ studie. Dette er en longitudinell studie, utført i Norge, hvor sykepleieres personlighetstype og mestringsstrategier undersøkes i forhold til arbeidsengasjement. Når det kommer til personlighet, viste resultatene at både utholdende/iherdige sykepleiere og de med lav selvtillit opplevde lite engasjement. I forhold til mestringsstrategier var defensiv mestring og selvbebreidelse negativ assosiert til arbeidsengasjement, mens akkomodasjon og det å søke støtte hadde en positiv innvirkning på arbeidsengasjement. Artikkelen er tenkt skrevet til tidsskriftet *Journal of Advanced Nursing*.

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SUMMARY

The positive antithesis to the well-known concept of burnout, namely work engagement, has been a popular topic under consideration in recent occupational health studies. Empirical findings indicate that promotion of work engagement leads to several positive job and personal outcomes, such as strengthened intensions to stay in the job as a nurse, subsequently supporting nurse workforce stability. This may be of great importance due to the major cuts in health services in many countries in recent years. As the largest group in health care, this has affected nurses by cuts in nursing positions and increased job demands. In addition, there is an increasing tendency that nurses to want to quit their jobs.

A lot of empirical knowledge about organizational factors that can affect work engagement, or lack of such, exists by now. However, there is few studies examining the influence of personal factors on work engagement in general, as well among nurses, and why some employees report high levels of work engagement whereas others working in the same environment do not. In this master thesis there is focus on personality and coping strategies as personal factors.

This master thesis consists of two articles. The first article is a theory article which presents the concepts of work engagement, personality and coping, as well as related theory. The Conservation of Resource theory explains the dynamics between the individual's maintenance, acquisition or loss of resources, and health outcomes. Further, the Job Demands-Resource theory outlines that both job resources and personal resources positively affect work engagement. In addition, the Temperament and Character Theory and the Stress and Coping Theory are explained in relation to personality and coping, respectively. With this as theoretical background, nurses' personal resources' relation to work engagement are discussed.

The second article presents an empirical quantitative study. This is a longitudinal study where personality traits and coping strategies among nurses are examined in relation to their work engagement. Findings showed that nurses with a persistent personality and those with a lack of self-esteem scored low on work engagement. Further, the results showed that nurses that seek support in stressful situations at work, and those who cope in an accommodative way, reported higher engagement, whereas self-blame and defensive coping were negatively related to work engagement among nurses. This empirical article has been written according to guidelines of the *Journal of Advanced Nursing*.

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Personal resources and work engagement among nurses

Abstract

Due to the global ever-increasing shortfall of nurses, promotion of work engagement is important to support nurse workforce stability and to retain safe health care services of good quality. The changes in the world of work have resulted in a need for employees with a great pool of personal resources. Indeed, personal resources have proven to be beneficial in relation to work engagement, both theoretically and empirically. In this article, the Conservation of Resources theory has been used to explain how resources in general can promote positive health outcomes (e.g. work engagement). Further, the Job Demands-Resource theory is included in the article to demonstrate how nurses' personal resources can contribute to a motivational process and work engagement, as well as positive organizational outcomes. Personal resources refer often to coping strategies and personality traits. Thus, it is discussed how these types of personal resources can promote work engagement among nurses.

This article's research questions are:
1) *What is work engagement?*
2) *Can personal resources have an influence on work engagement among nurses?*
3) *Which personal resources can be relevant in the nursing profession?*

Introduction

A shortage of nursing staff has globally affected health services in the last couple of years (Bargagliotti, 2012), and seem to threaten nations health services' quality and justifiability (O'Brien-Pallas et al., 2001). One reason for this nurse shortfall might be attributed the rapidly increasing number of elderly people worldwide (UnitedNations, 2013), making a growing request for health services in the population and more complex and chronic diseases needs to be taken care of. Secondly, the workforce of nurses is decreasing for reasons such as few educated nurses available (Oulton, 2006) in addition to high rates of turnover among nurses (Roche, Duffield, Homer, Buchan, & Dimitrelis, 2015). However, evidence indicates that promotion of work engagement seem to buffer work stress and support nurse workforce stability (Van Bogaert, Wouters, Willems, Mondelaers, & Clarke, 2013) as the more engaged nurses is in their work, the greater is their desire to remain in their jobs (Leiter & Maslach, 2009).

Although it is identified several organizational factors and stressors that can decrease work engagement among nurses, for example staff shortage, high workload, excessive administrational duties and low salaries (Van der Colff & Rothmann, 2009), unfortunately these are factors that has proven to be difficult to change because of economical and organizational prerequisites in health care institutions. Without undermining the importance of working towards changing these negative organizational factors and stressors, this indicates a need to promote work engagement among nurses within the economic and organizational framework that we face in the healthcare system. Moreover, it has been argued that it is important to look at both organizational conditions and employees' personal differences to establish an adequate understanding of work engagement (Macey & Schneider, 2008) and that there is yet little empirical knowledge about the influence of personal differences on engagement among nurses (Garrosa, Moreno-Jiménez, Rodríguez-Muñoz, & Rodríguez-Carvajal, 2011). Nevertheless, most work engagement studies have tended to focus on job and organizational resources (Bakker & Demerouti, 2008; Freeney & Tiernan, 2009; Jenaro, Flores, Orgaz, & Cruz, 2011; Maslach & Leiter, 1997). Thus, it might be highly beneficial to society to call more academic attention to personal factors in relation to nurse engagement.

In addition, the recent emerging positive psychology is emphasizing the importance that positive psychological strengths and capacities can have on human functioning (Peterson & Seligman, 2004; Schaufeli & Bakker, 2004; Seligman & Csikszentmihalyi, 2014). The positive psychology orientation refers to the positive aspects of personal resources. Therefore,

interventions aimed at improving nurse engagement may be more effective if they include enhancing nurses' personal resources rather than just decreasing environmental stressors and organizational factors (Garrosa, Moreno-Jimenez, Liang, & Gonzalez, 2008; Peterson & Seligman, 2004).

Research questions:

1) *What is work engagement?*
2) *Can personal resources have an influence on work engagement among nurses?*
3) *Which personal resources can be relevant in the nursing profession?*

Work engagement

As with many other psychological concepts, the meaning of work engagement may seem clear at first glance and easy to recognize in practice, but yet difficult to define. The distinction between work engagement and other concepts can appear to be blurred. According to Schaufeli and Bakker (2010), examples of alternative terms could be involvement, commitment, passion, enthusiasm, absorption, focused effort and energy. In business, big consultancy firms have conceptualized engagement by combining and relabeling other existing notions such as commitment, satisfaction, involvement, motivation and extra-role performance (Schaufeli, 2013). However, this approach is used internally within these kinds of organizations and is thus not peer reviewed and lacks transparency. In academia, there is a need for a distinct and less unambiguous definition of work engagement which is transparent and verifiable. Several academic definitions of work engagement exist. Some of the most well-known definitions will briefly be presented below.

William Kahn (1990) is regarded as the first scholar that defined engagement at work. Based on empirical findings and recognized theory in psychology, sociology and group theory, he developed a theoretical framework for personal engagement in the work context. Kahn (1990) defined it as; «harnessing of organization members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances» (p. 694). According to Kahn, there is a dynamic interaction between the employee and his/her job role, where the job role itself acts as a driving force leading to the individuals' willingness to invest personal energy (physically, cognitively, emotionally and mentally) in the job. Kahn's first empirical article about work engagement was published as early as 1900 (i.e. Kahn, 1990). Nevertheless, it took almost a decade before

other scholars focused on this new and positive concept of occupational health.

In line with the increasing trend of positive psychology during the 90's and early 2000's (see: Seligman & Csikszentmihalyi, 2014), interest in work engagement among academics also increased. In contrast to previous occupational health studies, where the negative aspect of work (i.e. burnout) had been the most prominent topic under consideration (Bakker & Demerouti, 2008), this new trend of examination of the positive aspect of work (i.e. engagement) permitted a more holistic view of the employee. This also implies a movement beyond the traditional pathology perspective towards understanding and improvement of healthy functioning, i.e. the positive psychology emergence (Seligman & Csikszentmihalyi, 2014). Additionally, the increased interest of engagement in the turn of the 21st century can be related to the changes in world of work and business in the last decades. As David Ulrich, a leading expert in human resources management, has stated; "Employee contribution becomes a critical business issue because in trying to produce more output with less employee input, companies have no choice but to try to engage not only the body but the mind of every employee" (1997, p. 125). Thus, the individual employee's capability matters more now than it did in the past, and the employee's psychological capital, including their motivation, is ever-increasingly taxed by organizations. As Schaufeli (2013) points out; this is exactly what work engagement is about.

Unlike those who suffer from burnout, engaged employees have a sense of energetic and effective connection with their work, and look upon their work as challenging rather than stressful and demanding. Two different but related schools of thought picked up the interest of the concept of work engagement. Both consider work engagement as a positive, work-related state of well-being or fulfillment from a burnout-antithesis perspective. According to Maslach and Leiter (1997), work engagement is characterized by energy, involvement, and efficacy. Moreover, these authors argue that engagement and burnout are the positive and negative endpoints of the same continuum. Thus, this means that highly engaged employees are inevitably low on burnout, and vice versa. Accordingly, work engagement is seen as a motivational concept where the employee feels personal commitment to reach work goals and put personal energy and enthusiasm into their work.

The alternative view considers work engagement as an independent, distinct concept that is negatively related to burn out. In recent years, this seems to be the most preferred view of engagement in academia. According to Schaufeli, Salanova, González-Romá and Bakker work engagement is described as "… a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (2002, p. 74). Vigor is characterized by

high levels of energy and mental resilience while working and the willingness to invest effort in one's work, even when faced with difficulties; dedication is characterized by a sense of significance, enthusiasm, inspiration, pride, and challenge at work; and absorption refers to being fully concentrated and happily engrossed in one's work, whereby time passes quickly, and one has difficulties with detaching oneself from work. Although Schaufeli et al. (2002) agrees with the burnout-antithesis approach, they see work engagement and burnout as distinct and independent constructs that is negatively relate to each other, rather than opposite ends of the same continuum.

Measuring work engagement

Although Kahn (1990) presented a comprehensive theoretical model of personal engagement in the work context, he did not propose an operationalization of the construct. After a few years, however, The Maslach Burnout Inventory (MBI: Maslach, Jackson, & Leiter, 1996) was developed. This measurement instrument is based on the view of Maslach and Leiter (1997) as described above. By implication, engagement in this view is assessed by the opposite pattern of scores on the three MBI-burnout dimensions. That is, according to these authors, low scores on exhaustion and cynicism, and high scores on efficacy are indicative for engagement.

However, the MBI have been criticized to be somewhat inadequate for measuring work engagement, since all items in each burnout subscale are framed in the same direction (Demerouti, Mostert, & Bakker, 2010). Thus, the MBI is highly suitable to assess burnout, but not necessarily good enough to assess work engagement. Additionally, this makes it difficult to study engagement's relationship with burnout empirically since both concepts are considered to be opposite poles of a continuum that is covered by one single instrument, namely the MBI. Indeed, several studies have shown that work engagement and burnout should be considered as distinct concepts that ought to be measured independently (for an overview, see: Schaufeli, 2012). Therefore, Schaufeli et al. (2002) developed the Utrecht Work Engagement Scale (UWES) which operationalize engagement as an independent three-dimensional construct of vigor, dedication and absorption.

Although the UWES might provide a better operationalization of work engagement than the MBI, it has been criticized because all subscales are framed positively and, therefore, might be inferior to scales including items framed in both directions (Bakker, 2008).

Consequently, the Oldenburg Burnout Inventory (OLBI: Demerouti & Bakker, 2008) might be a more suitable instrument measuring engagement. Originally, the OLBI was developed to assess burnout, but since the inventory includes both positively and negatively phrased items where both ends are represented, it is also considered suitable to assess work engagement (González-Romá, Schaufeli, Bakker, & Lloret, 2006). Methodologically speaking, when measuring engagement, the negatively framed items are therefore recoded in the opposite direction. Recent studies suggest operationalization of work engagement as only a two-dimension concept of vigor and dedication, as absorption is to be comprehended as a consequence of engagement, rather than an dimension of it (e.g. González-Romá et al., 2006). Thus, absorption is not included as a dimension of work engagement in the OLBI. Accordingly, vigor and dedication are considered direct opposites of the exhaustion and cynicism, respectively, where the vigor-exhaustion continuum is labelled energy and the dedication-cynicism is labelled identification. In other words, engaged employees are high in energy and have a strong identification with their job, whereas employees that are burnt out are low in energy and have a poor identification to their job.

The Conservation of Resources Theory

In an attempt to explain human behavior in stressful situations, Stevan Hobfoll developed the Conservation of Resources (COR: 1989, 1998) theory. This theory has also been used in several other settings, such as in research om job burnout and people facing traumatic events as war and natural catastrophes (Salanova, Schaufeli, Xanthopoulou, & Bakker, 2010). Additionally, COR theory has been applied broadly in the occupational health literature (Gorgievski & Hobfoll, 2008; Hobfoll, 2011), and recently in work engagement studies (i.e., see Airila et al., 2014; Bakker & Xanthopoulou, 2013; Innstrand, 2016). The basis of the Conservation of Resources theory is that people strive to obtain, maintain and create resources that they value (Hobfoll, 1989). Hence, resources in the Conservation of Resources theory are linked to the process of creating or maintaining survival and well-being.

Hobfoll considers resources as "those entities that either are centrally valued in their own right (e.g. self-esteem, close attachments, health and inner peace), or act as means to obtain centrally valued ends (e.g. money, social support, and credit) (2002, p. 307). These resources are either; objects (such as shelter and clothing); personal characteristics (individual traits and coping skills); conditions (such as social relationships, status at work and good

health); or, energy resources that can be exchanged for other resources (including time, money and knowledge) (Alvaro et al., 2010; Hobfoll, 1989). The COR theory argues that individuals with more resources are better positioned for resource gains, whereas individuals with fewer resources are more likely to experience resource losses (Whitman, Halbesleben, & Holmes, 2014). Gain spirals arise when individuals possess a large amount of resources, resulting in great chances for the individual to obtain more resources and prevent resource loss in stressful situations. Thus, high levels of work-related well-being (i.e. work engagement) could foster the acquisition of additional job resources, leading to a gain spiral and further positive health outcomes for the individual.

On the other hand, stress occur at three scenarios: (1) when the individual is at risk of losing resources, (2) when the individual actually loses resources, or (3) when the individual has consumed large amounts of resources, without having recovered corresponding amount of resources thus becomes negative (Gorgievski & Hobfoll, 2008). The process of loss spirals arises when individuals possess few resources, potentially resulting in inhibition of conservation of resources. As such, when an individual does not have access to a sufficient quantity of resources, as when an individual lacks the personal characteristics to deal with the demands at work, it is assumed to hinder conservation of resources and gain spirals, and furthermore, even cause loss of resources, possibly resulting in negative health outcomes and decreased work engagement.

The Job Demand-Resources Theory

The job demand-resources (JD-R) theory (Bakker & Demerouti, 2014, 2017; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) is one of the most-often used theories to explain work engagement (Garrosa et al., 2011). During the past 15 years, the model has resulted in a theory that predicts all types of occupational well-being, as well as a range of employee behaviors and organizational outcomes. The main tenet of the JD-R theory is that job demands and job resources independently contributes to one of two processes of employee well-being; job demands initiate a health-impairment process which leads to negative health outcomes (including burnout), whereas job resources initiate a motivational process which contribute positively to work engagement. An important extension of the original JD-R model is the inclusion of personal resources (Demerouti et al., 2001). As Figure 1 outlines, personal resources play a similar role as job resources in the JD-R theory, contributing to the
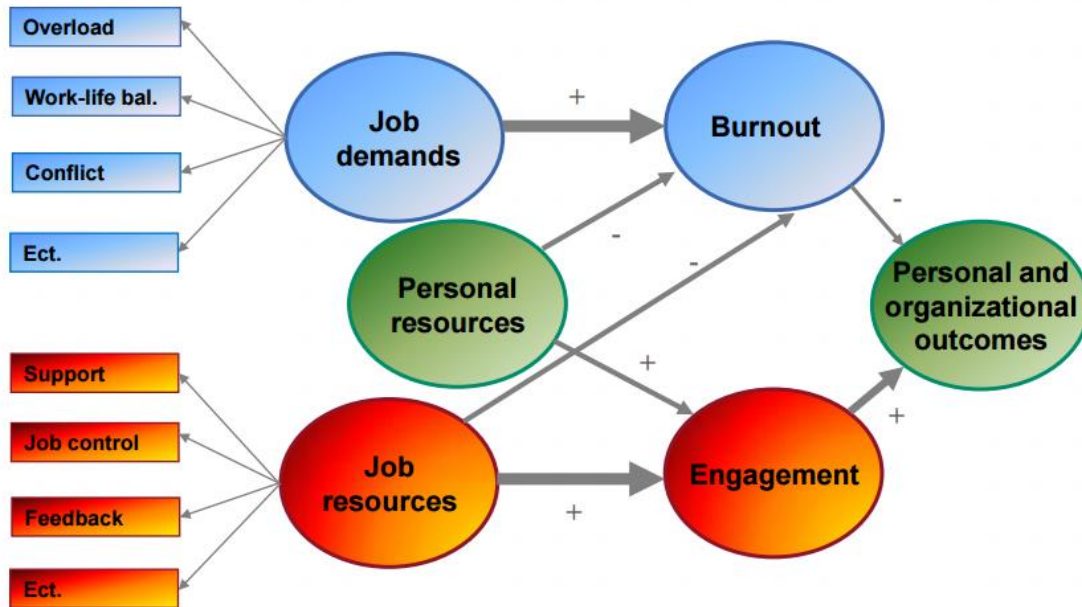
Figure 1: A demonstration of the extension of the original JD-R model where personal resources was included (Demerouti et al., 2001), and later continued to the theory.

motivational process and work engagement. The JD-R theory is flexible and universal, where all job characteristics may be included as either job demands or job resources. Thus, the theory can be applied to all types of work conditions and be tailored to the specific profession under consideration (Bakker, Demerouti, & Sanz-Vergel, 2014).

Job demands refer to those physical, psychological, social, or organizational aspects of the job that require sustained physical and/or psychological effort and are therefore associated with certain physiological and/or psychological costs (Bakker, Demerouti, & Euwema, 2005; Demerouti et al., 2001). Examples are a workload, complex tasks, and conflicts. In contrast, job resources refer to those physical, psychological, social, or organizational aspects of the job that are: (a) functional in achieving work goals; (b) reduce job demands and the associated physiological and psychological costs; or (c) stimulate personal growth, learning, and development (Bakker, 2011). Hence, resources are not only necessary to deal with job demands, but they are also important in their own right. Examples of job resources are autonomy, social support, performance feedback, opportunities for knowledge development (Bakker & Demerouti, 2008), task variety, task significance, and transformational leadership (Christian, Garza, & Slaughter, 2011). Further, personal resources refer to aspects of the self that are linked to resilience and refer to individuals' sense of their ability to successfully

control and impact upon their environment (Hobfoll, Johnson, Ennis, & Jackson, 2003), e.g. extraversion (Langelaan, Bakker, Van Doornen, & Schaufeli, 2006), optimism, self-efficacy, self-esteem (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007, 2009), and resilience (Mäkikangas, Feldt, Kinnunen, & Mauno, 2013).

The JD-R theory suggest that job and personal resources are instrumental in that they arm employees with the means it takes to cope with the job demands (Bakker & Demerouti, 2018) and are thus assumed to buffer job demands. that work engagement is most likely to occur when workers are confronted with high job demands, and at the same time have sufficient job and personal resources available to deal with these challenges (Bakker & Sanz-Vergel, 2013; Tadić, Bakker, & Oerlemans, 2015). Indeed, previous studies support this suggestion (e.g. Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007; Hakanen, Bakker, & Demerouti, 2005) and it is consistent with Hobfoll's (2001) argumentation that all types of tangible or psychological resources gain importance and become particularly useful when needed.

Furthermore, even though originally it was the overall goal of the theory, the JD-R theory does not only predict employee well-being. The theory also to predict job performance, i.e. employee behavior and organizational outcomes, as absenteeism, productivity and financial results, through employee well-being. That means that, through work engagement, the motivational process has a positive impact on job performance, whereas the health impairment process, through job strain (including burnout), has a negative impact on job performance.

Personal resources and work engagement

It is an intriguing question why some employees report high levels of work engagement whereas others working in the same environment do not. As Lazarus and Folkman (1984) argues, people and groups differ in their sensitivity and vulnerability to environmental demands and pressures, as well as in their reactions and interpretations to them. Personal resources seem to contribute to stress tolerance as people invest in personal resources to avoid loss and maximize gain (Hobfoll, 1989). Moreover, as purposed by the JD-R theory, personal resources are also important in their own right because they reflect self-beliefs about control over one's work environment. Therefore, it might be of high interest to study the role of personal resources in engagement (Bermejo-Toro, Prieto-Ursúa, & Hernández, 2016).

Although research evidence for the JD-R model is accumulating and some previous studies have shown that employees are higher in work engagement when they have higher levels of personal resources (e.g. Langelaan et al., 2006; Mäkikangas et al., 2013; Naudé & Rothmann, 2006; Xanthopoulou et al., 2007, 2009), the role of personal resources in work engagement is not yet well understood (Demerouti & Bakker, 2011). Work engagement have been associated with personal resources such as optimism, high degree of self-efficacy and confidence (Bakker, Schaufeli, Leiter, & Taris, 2008) and other personality and temperament factors (Langelaan et al., 2006). Still, research on organizational factors overshadowed research on the influence of personal resources on work engagement (Jenaro et al., 2011). As a response to this, one of the current trends in the work engagement literature is to examine this topic empirically (e.g. Alessandri, Consiglio, Luthans, & Borgogni, 2018; Caniëls, Semeijn, & Renders, 2018). As outlined by the COR theory, personal characteristics resources refer to coping strategies and individual/personality traits (Hobfoll, 1989).

Coping strategies

If we turn back to stress research, Lazarus and Folkman (1984) argued that people suffer from stress when they believe they lack the resources to deal with difficult events. They also noted the complex interaction between individuals and their environment and emphasized the role of cognitive processes and individual characteristics (such as appraisal and coping) that may affect the outcome of potentially stressful events. Thus, in a work situation, it could be assumed that people would *not* suffer from stress but rather potentially achieve work engagement when they *do* believe they are able to successfully control and impact upon their environment (i.e. personal resources). This is supported by recent empirical evidence which indicates that employees' beliefs about their personal resources seems to be important determinants of work engagement (Alessandri et al., 2018). Further, findings in the study of Caniëls et al. (2018) supports Lazarus and Folkman's notion of the complex interaction between individual characteristics (personal resources) and job resources (environmental conditions) and demonstrates its influence on work engagement and positive job outcomes. Therefore, based on these assumptions, coping strategies that are adaptive and effective might act as personal resources that contribute to the motivational process and enhance work engagement.

According to Lazarus and Folkman's (1984) transactional theory of stress and coping,

the definition of coping is as followed: "constantly changing cognitive and behavioral efforts two manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (p. 141). Within this theory, coping strategies aim to either directly managing the threat or stressor itself (problem-focused coping), or regulate emotions arising from a stressful encounter (emotion-focused coping) (Lazarus & Folkman, 1984). Coping may involve aspects of both minimization, avoidance, toleration and acceptance of a given stressful situation, as well as attempts to master stressful conditions (Lazarus & Folkman, 1984).

In general, most studies have shown that problem-focused coping generally are associated with positive effects, whereas emotion-focused is often considered to be maladaptive and ineffective (e.g. Graven et al., 2014). However, according to Lazarus and Folkman (1984) coping strategies is basically neither inherently effective or ineffective. The effectiveness of coping is rather dependent on how well the coping strategy corresponds to the individual's appraisals and the situational conditions. Thus, the effectiveness of a coping strategy depends on the complex interplay between the coping strategy, its fit to the situation and the environmental context. Consequently, the relation between coping and work engagement would most likely not only depend on the coping strategies itself, but also depend on different job characteristics and, therefore, which profession that is under consideration.

Based on Lazarus and Folkman's (1984) transactional theory of stress and coping, measurement of coping is operationalized by the Ways of Coping Checklist (WCCL: Aldwin, Folkman, Schaefer, Coyne, & Lazarus, 1980; Falkum, Olff, & Aasland, 1997; Folkman, 2013; Vitaliano, Russo, Carr, Maiuro, & Becker, 1985). This survey contains items both measuring problem-focused coping and emotion-focused coping. The Norwegian version of the WCCL (Falkum et al., 1997) contains operationalization of six coping factors; defense, seek support, self-blame, action, accommodation and positive thinking.

Personality traits

An individual's personality profile may play an important role in work engagement as beneficial personal traits can serve as a tool to mobilize job resources (Macey & Schneider, 2008). Personality have been defined in several ways, for example; as a sum of stable and habitual patterns of behavior that are characteristic of an individual (Maddi, 1989); or, as individuals' dynamic organization of their psychobiological systems that moderate adaption to a changing environment (Cloninger, Svrakic, & Przybeck, 1993). Hence, personality traits

can be seen as stable individual differences in of how people behave, perceive, relate to and think about oneself, other people and the world as a whole (Cloninger, 1998)

Cloninger's dimensional psychobiological model of personality (see Cloninger, 1987; Cloninger, Przybeck, Svrakic, & Wetzel, 1994; Cloninger et al., 1993) takes into account both normal and abnormal variation in two components of personality, named temperament and character. Temperament traits refer to individual differences in our basic automatic response to emotional stimuli, such as fear, anger and attachment (Cloninger, 1998). These components of personality are considered moderately heritable and moderately stable through life (Goldsmith et al., 1987). On the other hand, character traits include individual differences in self-object relationships and our voluntarily goals and values, which people learn, develop and mature in a step-wise matter from birth and through life (Cloninger, 1998). Thus, temperament refers to the emotional predispositions we are born with, whilst character is what we intentionally make of our self as we mature through the course of life.

Cloninger's dimensional psychobiological model of personality is operationalized by the Temperament and Character Inventory (TCI: Cloninger et al., 1994). TCI elaborate four dimensions of temperament and three dimensions of character (Brändström et al., 1998). The temperament dimensions are novelty seeking, harm avoidance, reward dependence, and persistence. The character dimensions are self-directedness, cooperativeness, and self-transcendence. For every dimension, a number of subscales are elaborated to measure facets of the main trait. Several studies have confirmed the validity of Cloninger's model and its utility for understanding human behaviour and mental health. For instance, empirical findings support the notion of that the temperament dimensions are more or less heritable (e.g. Stallings, Hewitt, Cloninger, Heath, & Eaves, 1996) and that each dimension, as well as combinations of them, have been associated with several clinical syndromes of mental health (Cloninger et al., 1994; Ebstein et al., 1996; Svrakic, Whitehead, Przybeck, & Cloninger, 1993).

Individual differences in sensitivity and vulnerability to environmental demands and pressures at work might derive from peoples different individual temperaments (Deguchi et al., 2016). Thus, it could be assumed that employees' differences in temperament traits play an important in their experience of work engagement. However, temperament traits have received little attention in occupational health research (Deguchi et al., 2016).

Discussion

Personal resources among nurses and work engagement

The focus of this article is personal resources among nurses and its relation to nurse engagement. The nursing profession is considered to be inherently stressful and an above-average risk group regarding work stress (Demerouti, Bakker, Nachreiner, & Schaufeli, 2000). However, events that are perceived as stressful by some individuals may be perceived as either not stressful or minimally stressful by others (Ingram & Luxton, 2005). Therefore, it can be assumed that some nurses experience high levels of work engagement whereas other nurses working in the same environment do not. Additionally, this might indicate that individual differences in sensitivity and vulnerability to environmental demands and pressures at work most likely exist also among nurses.

As mentioned in the introduction, nurse shortage is a well-known fact, as well as increasing demands in health care. Hence, the ever-increasing importance of nurses' human and psychological capital. Personal resources' relation to work engagement and positive personal and organizational outcomes is outlined by both JD-R and COR theory. Thus, to promote proper health care services, high patient safety and good occupational health among nurses, as well as prevent nurse turnover and absence, it might be of great importance for health care institutions to focus on nurses' differences in personal resources and its relation to their work engagement.

Coping strategies and work engagement among nurses

In previous coping research, coping often is explored in relation to negative factors such as stress, illness and disease (e.g. Compas et al., 2017; Guardino & Dunkel Schetter, 2014; Harvey, Gehrman, & Espie, 2014; Richardson, Schüz, Sanderson, Scott, & Schüz, 2017). This pattern is also prominent in occupational health studies; there is little empirical knowledge of coping strategies' association to work engagement, as previous studies mainly focus on coping in relation to occupational stress and burnout (e.g. Chan & Hui, 1995; McTiernan & McDonald, 2015; Plana, Fabregat, & Biscarri-Gassió, 2002; Thornton, 1992). However, one of the few studies exploring nurses' coping strategies in relation to work engagement have shown that problem-focused coping as approach coping and seeking emotional/social support predicted high work engagement, whereas emotion-focused coping as avoidance and focus on and ventilation of emotions decreased nurses work engagement (Van der Colff & Rothmann,

2009). In addition, positive reappraisal (see: Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986), which could be classified as problem-focused coping, have been identified as one of the most used coping strategies among nurses (Lambert, Lambert, Petrini, Li, & Zhang, 2007).

Problem-focused coping include strategies which act as means to directly manage the threat or stressor itself (Lazarus & Folkman, 1984). In other words, problem-focused coping is to directly deal with the problem without putting too much emotion in it. To a high extent, nurses use themselves as work tools (both physically and mentally) in interaction with patients. If they still manage to keep an emotional and professional distance when faced with a stressor or problem and approach it in a pragmatic and expedient way (i.e. problem-focused coping) nurses thus might be more likely to achieve work engagement and positive job outcomes. Conversely, emotion-focused coping may be maladaptive because they focus on the source of distress and thus exacerbate it, or because they put off dealing with the problem (Carver, Scheier, & Weintraub, 1989).

However, nursing is a very versatile profession and therefore there are many places where a nurse can work. These different workplaces might differ a lot in their work environment and might include different demands and challenges for the employee to handle. For example, nurses working in a nursing home can have physically challenging jobs (e.g. heavy lifting etc.), whilst nurses working in a children hospital ward can often be faced with emotionally challenges at work (e.g. treating seriously ill children). In addition, although it is not so frequent, there are some nurses that work in an office, for example nurses that work in insurance companies or nurses having an administrative position where they have minimal or no patient contact. As mentioned earlier, the effectiveness of coping does not entirely depend on the stressor itself, but also the context (i.e. the working environment) (Lazarus & Folkman, 1984). Therefore, these differences in work environments for nurses might have an impact on their coping strategies' relation to work engagement.

Additionally, according to Lazarus and Folkman's (1984) transactional theory of stress and coping, the effectiveness of coping does also depend on the individual's appraisal of the situation and. Further, the COR theory described resources (e.g. personal resources) as largely socioculturally framed rather than individualistic (Hobfoll, 1998). Hence, most perceptions are seen as common among members who share a cultural niche. Thus, there might also be cross-cultural differences in the effectiveness of coping (i.e. personal resources) among nurses and in its relation to nurse engagement.

Due to the fact that there seemingly are few studies exploring coping strategies in

relation to nurses' engagement, further research is needed to disclose which coping strategies that predict work engagement among nurses.

Personality traits and work engagement among nurses

Several previous studies have shown that personality trait resources are positively related to work engagement. For instance, Mäkikangas et al. (2013) found that of the Big Five personality factors, emotional stability, extraversion, and conscientiousness were related to higher work engagement. Of lower-order personality factors, low neuroticism (Langelaan et al., 2006), self-efficacy, optimism and self-esteem (Xanthopoulou et al., 2007, 2009) have also been positively associated to work engagement. Among nurses, studies have shown that hardy personality, optimism (Garrosa et al., 2011), lower social dysfunction (Jenaro et al., 2011), high levels of core self-evaluations and proactive personality (Yan, Su, Wen, & Luo, 2017) have a positive relation to nurse engagement.

Proactive personality refers to the dispositional tendency to engage in proactive behavior in a variety of situations (Bateman & Crant, 1993). Individuals with a proactive personality identify opportunities, take action, and preserve until they bring about meaningful change (Crant, 1995). Thus, nurses with a proactive personality might be more inclined to increase their job resources (e.g. ask for feedback and support for colleagues and leaders) and job challenges (e.g. seek out opportunities for development, look for new tasks, and volunteer for projects) (Bakker, Tims, & Derks, 2012). In this way, nurses are able to adjust their job demands and mobilize their job resources, subsequently resulting in higher work engagement.

Optimism has been described as an activity related to goal attainment, positive expectations, and self-regulation (Scheier & Carver, 1985). Mäkikangas and colleagues argues that optimistic individuals "… expect things to go well and accept setbacks and failures as normal" (2013, p. 134). Thus, nurses with a personality highly characterized by optimism could have a basic positively interpretation of their environment and an overall positive appraisal of the future. Consequently, optimistic nurses might be better equipped to enhance work engagement as they are likely to display confidence in that, despite difficult obstacles, they will still persist in achieving their goals.

Nevertheless, reviewing the literature, the empirical knowledge of personality trait resources' relation to nurse engagement seems still to be scarce and deficient. To fill this gap of knowledge and achieve a more complete understanding of the mechanisms behind the

positive effect of personal resources' relation to nurse engagement, further research on this topic is necessary.

Conclusion

Within the economic and organizational framework that is in the healthcare system, promoting nurse workforce stability is important to retain justifiable health care services and reduce costs in health care to the minimum. Hence the great need for more knowledge about personal resources' association to nurse engagement. Personality traits and coping strategies are theoretically suggested to be personal resources that can contribute to occupational well-being and positive job performance. Indeed, there are some studies supporting this notion; for instance, problem-focused coping and personality traits as hardy personality, optimism, core self-evaluations and proactive personality have shown a significant relation to nurse engagement. Nevertheless, there is still a lack of knowledge about the mechanisms that makes personal resources contribute to work engagement among nurses.

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Personal resources and work engagement: a longitudinal study among nurses

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Abstract

Aims: To examine the association between nurses' personal resources and their work engagement. The personal resources under consideration were four coping strategies (seek support, accommodation, self-blame and defense) and two narrow personality traits (persistence and lack of self-esteem).

Design: A two-wave longitudinal panel study.

Background: The global shortfall of nurses threatens the quality of health care. Nurses need to be engaged in their work to stay in their jobs Personal resources seem to facilitate nurse engagement and support nurse workforce stability.

Methods: Data were collected from a representative sample of Norwegian nurses with a self-reported survey. Hierarchical regression analysis was conducted to test the hypotheses.

Results: The most surprising finding was the significant synchronous and long-term negative relationship between persistence and vigor. The rest of the independent variables showed the following associations: seek support and accommodation was positively associated, whereas self-blame, defense and lack of self-esteem were negatively related to work engagement among nurses. Some of the longitudinal analyzes did not reach significant levels. Possible explanations for this are discussed.

Conclusion: Finding in this study supports the notion that personal resources play an important role in nurses' work engagement. Further, the results could emphasize the need for periodically screening of personal resources among the nurse staff, which can give a good indication on which kind of interventions that might be appropriate promote their work engagement. Further research is needed to be able to draw conclusions regarding the independent variables relation to work engagement among nurses.

Key words: work engagement, nurses, nursing, personal resources, coping, personality

Introduction

In line with the emerging field of positive psychology (see Seligman & Csikszentmihalyi, 2014), occupational health scholars have been increasingly interested in work engagement, which is considered the positive antithesis of the more familiar and investigated term, named burnout (Maslach, Schaufeli, & Leiter, 2001; Schaufeli, Salanova, González-Romá, & Bakker, 2002; Truss, Shantz, Soane, Alfes, & Delbridge, 2013). Applying positive psychology principles to the workplace is proving to be beneficial for employees, as evidence indicates that work engagement reduces depressive symptoms and anxiety (Innstrand, Langballe, & Falkum, 2012) and increases overall life satisfaction and well-being (Hakanen & Schaufeli, 2012), subsequently giving 'healthy' employees. Furthermore, work engagement has been associated with several positive organizational outcomes, like more effectiveness and better results at the work place (Bakker, Schaufeli, Leiter, & Taris, 2008), better quality of patient care (Van Bogaert, Wouters, Willems, Mondelaers, & Clarke, 2013), and lower turnover intentions among nurses (Schaufeli & Bakker, 2004).

This might be of great importance for human resources management in health institutions, due to the cut-backs and increasing pressure and demands on the health care system in many nations (United Nations, 2013). As the biggest professional group in health care, nurses represent an important group in this matter. A shortage of nursing staff has globally affected health services in the last couple of years (Bargagliotti, 2012). In Norway, for example, recent findings show that 20 % out of newly educated nurses leaves their jobs in health care within 10 years (Statistics Norway, 2017) and, overall, it is estimated a shortfall of at least 25.000 nurses in 2030 (Texmon & Stølen, 2009). The nursing profession is considered to be inherently stressful and an above-average risk group regarding work stress (Demerouti, Bakker, Nachreiner, & Schaufeli, 2000), where staff shortage has been identified as the most severe stressor (Van der Colff & Rothmann, 2009). In turn, work stress could lead to several negative outcomes, including absenteeism and turnover among nurses (Vahey, Aiken, Sloane, Clarke, & Vargas, 2004), consequently making this a vicious circle of lack of staff resources. However, promotion of work engagement seems to buffer work stress and support nurse workforce stability (Van Bogaert et al., 2013).

There is little empirical knowledge about the influence of personal resources on engagement among nurses (Garrosa, Moreno-Jiménez, Rodríguez-Muñoz, & Rodríguez-Carvajal, 2011). However, it has been argued that it is important to look at both organizational conditions and employees' personal factors to establish an adequate understanding of work

engagement (Macey & Schneider, 2008). Thus, to examine nurses' personal resources' relation to their engagement could be of great advantage to improve health services' stability, quality and justifiability. Additionally, it has been identified a lack of lagged designs within the work engagement research that can contribute with causal explanations (Christian, Garza, & Slaughter, 2011), as well as a lack of studies of a wide range of narrow personal factors in relation to work engagement (Halbesleben, 2010). Studying broad instead of narrow personal factors may conceal important relationships when predicting work engagement. Furthermore, whereas previous occupational health studies have largely emphasized stress and negative aspects of work (Bakker et al., 2008), we have examined the positive side of work, namely work engagement, which is in line with the growth of positive psychology (Seligman & Csikszentmihalyi, 2014).

This study aimed to longitudinally examine nurses narrow personal factors' (coping strategies and personality) relation to their engagement. Due to the scarcity of empirical research on this subject, this knowledge can add to the literature, make implications for HRM and leaders in health institutions, contribute to further theory building, and preparation of new hypotheses of work engagement.

Background

Work engagement

The most used definition of work engagement describes it as "a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli et al., 2002, p. 74). Recent studies, however, suggests operationalization of work engagement as only a two-dimensional concept of vigor and dedication, as absorption is to be comprehended as a consequence of engagement, rather than a dimension of it (e.g. González-Romá, Schaufeli, Bakker, & Lloret, 2006). Vigor is characterized by high levels of energy and mental resilience while working and the willingness to invest effort in one's work, even when faced with difficulties, whereas dedication is characterized by a sense of significance, enthusiasm, inspiration, pride, and challenge at work (Schaufeli & Bakker, 2004). In short, engaged employees experience a sense of energetic and enthusiastic attitude towards their work tasks. Moreover, they see themselves capable of dealing with the demands in their job.

The importance of resources in relation to work engagement is well theoretically anchored. The Conservation of Resources (COR: 1989, 1998) theory demonstrates how people is both endeavoring and have an inherent impetus towards creating, preserving, protecting and building resources that they value. According to COR theory, resources are defined as "… those objects, personal characteristics, conditions, or energies that are valued by the individual or that serve as a means for attainment of these objects, personal characteristics, conditions, or energies" (Hobfoll, 1989, p. 516). Further, the theory describes the process of gain spirals, which arises when individuals possess a large amount of resources, resulting in great chances for the individual to obtain more resources and prevent resource loss in stressful situations. Conversely, the process of loss spirals arises when individuals possess few resources, potentially resulting in inhibition of conservation of resources. In this way, the COR theory suggests that extreme diminution of resources causes burnout (Hobfoll & Shirom, 2001), whereas work engagement might be regarded as a resource surplus.

The Job Demands-Resources (JD-R: Bakker & Demerouti, 2007, 2014, 2017) theory can be seen as a complement to the more general COR theory (Hakanen, Perhoniemi, & Toppinen-Tanner, 2008). By the interaction of job characteristics (i.e. demands and resources) and personal resources, the JD-R theory models how employee well-being and job performance may be produced; job demands triggers a health impairment process (i.e. burnout), whereas job and personal resources promote a motivational process (i.e. work engagement), especially when job demands are high. The inclusion of personal resources in the JD-R theory is one important extensions of the theory (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). Personal resources can be defined as aspects of the self that are linked to resilience and refer to individuals' sense of their ability to successfully control and impact upon their environment (Hobfoll, Johnson, Ennis, & Jackson, 2003).

Previous studies suggest that personal resources positively affect the way in which nurses interact with their working environment and facilitate nurse engagement (Bakker & Sanz-Vergel, 2013; Garrosa et al., 2011). As Sonnentag, Dormann, and Demerouti (2010) argue, individuals need to feel that they possess the energetic, affective and cognitive potential (i.e. personal resources) required to deal with their work tasks. Thus, based on the notion of gain and loss spirals purposed by the COR theory (Hobfoll, 1989) and personal resources' contribution to the development of employee well-being in the JD-R theory (Bakker & Demerouti, 2007), it is assumed that nurses who have access to a large repertoire

of personal resources might be more resistant to adverse work conditions and would be more likely to benefit from job resources, and in that way be better equipped to achieve work engagement. Conversely, it is assumed that nurses who lacks personal resources will have lower chances to achieve work engagement.

As outlined by the COR theory, personal characteristics resources refer to individual (or personality) traits and coping strategies (Hobfoll, 1989). In the present study, six coping strategies and two personality traits thought to play an important role in the work engagement process among nurses is included to represent personal differences.

Coping strategies and work engagement

To understand why the outcome of given working conditions vary from person to person, coping can be an essential predictor, as people differ in their resources, experiences, motivation, preferences, and skills for coping (Folkman, 2013a). In this study, coping is conceptualized from the transactional approach to stress by Lazarus and Folkman (1984) and refers to the cognitive and behavioral strategies used to manage, avoid or control situations that could be regarded as particularly stressful (problem-focused coping) and the attendant emotions (emotion-focused coping). In this study, effective coping strategies is thus considered as personal resources, not only buffering stress, but also predicting work engagement. Ineffective coping strategies, however, are assumed to facilitate the process of loss spirals as described by the COR theory (Hobfoll, 1989), and decrease work engagement.

In a given situation, some coping strategies are helpful, while others are not (Folkman, 2013a). Findings in a cross-sectional study among nurses (Van der Colff & Rothmann, 2009) showed that approach coping and seeking emotional/social support increased work engagement, whereas avoidance, and focus on and ventilation of emotions decreased engagement. Furthermore, positive reappraisal (see: Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986), a construct conceptually very similar to accommodation, have been identified as one of the most commonly used coping strategies by nurses (Lambert et al., 2004; Lambert, Lambert, Petrini, Li, & Zhang, 2007). In the present study, the following coping strategies were considered as effective and were hypothesized to have a positive relationship to work engagement: seek support – inclination to express emotions and seek support in stressful situations and; accommodation – acceptance and tolerance of ambiguity, endurance and open reflection upon goals (Falkum, Olff, & Aasland, 1997). Conversely, the

following coping strategies were considered ineffective and were hypothesized to have a negative relationship to work engagement: self-blame – generally self-criticism, and; defense – defensive strategies like denial, regression and repression, fantasies and avoidant self-comfort (Falkum et al., 1997).

Personality traits and work engagement

An individual's personality profile may play an important role in work engagement as beneficial personal traits can serve as a tool to mobilize job resources (Macey & Schneider, 2008). Personality can be defied as the dynamic organization within an individual of the psychobiological systems that modulate adaption to a changing environment (Cloninger, Svrakic, & Przybeck, 1993). Cloninger's dimensional psychobiological model of personality (see: Cloninger, 1998) takes into account both normal and abnormal variation in two components of personality, named temperament and character. Two of the temperament traits were included in the present study. The first one, labelled persistence, corresponds to a tendency to maintain behaviors despite frustration and fatigue (Gana & Trouillet, 2003). Moreover, persistent employees tend to be hard working and stable (Kose, 2003). According to Cloninger (1994), a lower level of persistence manifests as low perseverance. Therefore, higher levels of persistence could be expressed as high perseverance and work engagement. Additionally, Mojsa-Kaja, Golonka, and Marek (2015) argues that persistence is negatively related to burnout, which often is considered the negative antipode to engagement. Thus, in this study, persistence is considered a personal resource that is expected to facilitate work engagement.

The second personality trait used in this study, labelled lack of self-esteem, is a temperament dimension reflecting a tendency to inhibit behavior when faced with new situations (Gana & Trouillet, 2003). People with high scores in this dimension are described as unassertive and shy, and their initiative is almost always inhibited by unfamiliar people or situations (Fredrickson (2001). Furthermore, they have a low tolerance for uncertainty and often feel tense and anxious, even when there is little to worry about, and therefore prefer to stay quiet and inactive. In previous research, engagement has been positively associated to *high* self-esteem (Mäkikangas, Feldt, Kinnunen, & Mauno, 2013) and low neuroticism (Langelaan, Bakker, Van Doornen, & Schaufeli, 2006). This corresponds to the process of resource gain and loss spirals proposed by the COR-theory (Hobfoll, 1989). Dependent on the

accessibility and effective management of resources, the cycle of using and replenishing resources emerges. Therefore, it is assumed that an individual who possesses high levels of self-esteem (i.e. a personal resource) becomes extra resistant to stressors and has great chances for further resource gains, which in turn promotes positive health outcomes for the individual. Conversely, when an individual does not have access to personal resources, as when an individual lacks self-esteem, it is assumed to hinder conservation of resources and gain spirals, and furthermore, even cause loss of resources, resulting in negative health outcomes and decreased work engagement. Thus, it is hypothesized lack of self-esteem is negatively related to work engagement in this study.

The study

Aims

The aim of this study was to examine cross-sectional and longitudinal associations between coping strategies and personality traits, and work engagement among nurses. More specifically, these hypotheses were tested:

1. Seek support is positively related to work engagement (H1).
2. Accommodation is positively related to work engagement (H2).
3. Self-blame is negatively related to work engagement (H3).
4. Defense is negatively related to work engagement (H4).
5. Persistence is positively related to work engagement (H5).
6. Lack of self-esteem is negatively related to work engagement (H6).

Design

A two-wave longitudinal panel design was used to collect data, with a two-year time interval between time 1 (T1) and time 2 (T2).

Participants and data collection

The study was administered by the Research Institute of the Norwegian Medical Association and Statistics Norway (SN). From the central Norwegian registers of employees and

employment, a representative national sample of eight different occupation groups was drawn. In the present study, the aim was to investigate nurses; hence, the nurses' response was extracted and used in the statistical analysis. A random sample of 1000 nurses (500 female nurses and 500 male nurses), including nurses, specially trained nurses and midwifes, working in both public and private sector, were requested to participate by letter. The data collection took place in 2003 and 2005. In both study phases, the questionnaire was sent to their home address, along with a letter stating the goals of the survey, their right to withdraw and ensuring participant confidentiality (see Appendix 1). The follow up questionnaire (T2) was only sent out to the ones responding at T1, who were alive, and who were not hospitalized.

Measurements

Work engagement was operationalized by the Norwegian version of the 16-item Oldenburg Burnout Inventory (OLBI: Demerouti & Bakker, 2008). Originally, the OLBI was developed to assess burnout, but since the inventory includes both positively and negatively phrased items where both ends are represented, it is also suitable to assess work engagement (González-Romá et al., 2006). Since vigor and dedication is considered to be the core dimensions of work engagement, absorption is not included in the OLBI (González-Romá et al., 2006). The OLBI covers not only affective aspects of vigor and dedication but also physical and cognitive aspects, making it suitable to apply to every given occupation under consideration (Demerouti & Bakker, 2008), including the nursing profession. Vigor is operationalized by eight items, including *"I manage strain at my work very well"*. Dedication is also operationalized by eight items, including *"I find my work to be a positive challenge"*. The respondents were asked to report to what extent the following statements correspond with their own experience the last month. A five-point response Likert scale ranging from *"totally disagree"* to *"totally agree"* were used in both scales.

The factorial validity has been confirmed in several previous studies (e.g. Demerouti, Bakker, Vardakou, & Kantas, 2003; J. R. B. Halbesleben & Demerouti, 2005), as well as the reliability and invariance across time for the Norwegian version (Innstrand et al., 2012; Langballe, Innstrand, Aasland, & Falkum, 2011). One item in the Norwegian version was changed, but it did not seem to have any significant impact on the factor structure (see: Innstrand et al., 2012).

Coping strategies were assessed by a selection of items from the Norwegian version of

the Ways of Coping Checklist (WCCL: Falkum, Olff, & Aasland, 1997; Folkman, 2013). This operationalization of coping is based on the transactional theory of stress and coping developed by Lazarus and Folkman (1984). In the present study, two scales of problem-focused coping factors; seek support (6 items, including *"I ask a relative or friend I respect for advice"*), and; accommodation (9 items, including *"I change or grow as a human being in a good way"*), and two emotion-focused scales; self-blame (5 items, including *"I blame myself"*), and; defense (7 items, including *" I refuse to believe it has happened"*) were applied. The respondents were asked to report in general terms to what extent a number of statements of ways to cope were correct for them when confronted with really stressful situations and strain, ranging from *"Incorrect"* to *"Correct"*.

The WCCL have been factored in a number of samples with different demographic characteristic (e.g. Aldwin, Folkman, Schaefer, Coyne, & Lazarus, 1980; Falkum et al., 1997; Folkman & Lazarus, 1986; Vitaliano, Russo, Carr, Maiuro, & Becker, 1985). There have been made two modifications of the Norwegian WCCL (see: Falkum et al., 1997).

Personality traits. In the present study, the operationalization of personality traits was based on Cloninger's dimensional psychobiological model of personality (see Cloninger, 1987; Cloninger, Przybeck, Svrakic, & Wetzel, 1994; Cloninger et al., 1993). An excerpt of the 226-item true-false questionnaire named Temperament and Character Inventory (TCI: Cloninger et al., 1994), was used to assess persistence and lack of self-esteem. Persistence was measured by 4 items, including *"I'm usually so determined that I continue to work long after others have given up".* Lack of self-esteem was assessed by 9 items, including *"Often it seems that others do everything much better than me"*. The respondents were asked to report if the statements listed matched them or not, by either selecting *"True"* or *"False"*.

Originally, the lack of self-esteem dimension is named harm avoidance, and is measured by 35 items in the TCI. In the present study, however, this dimension is measured by a representative selection of items from the original scale and renamed 'lack of self-esteem' based on the wording of the items. Previous researchers have found the TCI to be an internally consistent and factor-analytically valid instrument (Brändström et al., 1998; Sato et al., 2001) and the psychometric properties have been extensively evaluated in both clinical and normative samples (Cloninger et al., 1994).

Control variables. Since the number of working hours per week varied among the subjects (SD = 7,5)., this was taken into account by statistically controlling for actual working hours. Additionally, as in previous work engagement research (e.g. Schaufeli, Bakker, &

Salanova, 2006; Shimazu & Schaufeli, 2009), the potential confounding factors of age and gender was also controlled for.

Ethical considerations

As this was a questionnaire-based study with nursing staff and no patient involvement, there was no requirement in Norway to seek ethics committee approval. Nevertheless, the study complied with the Helsinki Declaration and achieved implied consent through voluntary, anonymous return of surveys (World Medical Association, 2013).

Data analysis

The statistical analysis was conducted using SPSS (version 23.0). To assess the contribution of the independent variables to the dependent variables, multiple hierarchic regression analysis was carried out. The control variables were added in the first step in the regression equations. The two-wave panel design enabled examination of both synchronous (i.e. cross-sectional) and lagged (i.e. longitudinal) relationships. Synchronous effects refer to the effects by which the dependent variable at T1 are regressed on the predictors at T1. This are considered adequate evidence if the time the predictor needs to cause change is shorter than the time lag of the investigation (Finkel, 1995). Lagged effects are the effects of the independent variable at T1 on the dependent variable at T2. This is often considered as evidence for causal relationships among variables (Taris, 2000). In this study, lagged effects were computed two ways; both with and without adjusting for the dependent variable at T1. Adjustment of the dependent variable at T1 helps eliminate regression to the mean effects (Finkel, 1995). However, in some cases this could be a somewhat inappropriate approach, as the effect of the baseline work engagement variables on the outcome work engagement variables could be so strong that all other effects will be diminished (Vogt, Jenny, & Bauer, 2013). Thus, the relationship between the predictors and work engagement was regressed in three ways; synchronous and longitudinal both with and without controlling for the T1 dependent variables.

Results

In the first study phase, 681 of the 1000 nurses (68 %) whom was sent the questionnaire replied. Of these, there were 342 women and 339 men. Overall, mean age were 41 years (SD = 10,0), ranging from 23 to 69 years. In the second study phase (T2), 496 nurses of the original sample of 681 (73 %) replied; 251 women (response rate 73 %) and 245 men (response rate 72 %).

Table 1 presents Pearson's r correlations among the measures, means, standard deviations and Chronbach's alpha reliability values. All measure instruments used had an acceptable alpha of 0.71 or higher, except for accommodation at T1 (α = 0.68) and T2 (α = 0.67). The test-retest values of the study variables were fairly high ranging from 0.51 to 0.65, except for accommodation (R = 0.49). It is worth noting that the accommodation dimension has previously been used in studies despite low reliability values (e.g. by Falkum, Olff, & Aasland, 1997). All correlations were in the expected direction, apart from persistence, which was negatively correlated to the work engagement variables. Further, all the independent variables had a significant correlation to the work engagement variables, except from the correlation between; accommodation at T1 and vigor and dedication at T2; accommodation at T2 and vigor and dedication at T1 and vigor at T2; persistence at T1 and dedication at T1 and T2; and, persistence at T2 and dedication at T1 and T2.

Table 1: Means (M), standard deviations (SD), Chronbach's alphas (α) and Pearson's r correlations for the study variables

Variable	M	SD	α	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.
1. VIG T1	3.30	.75	.87	-															
2. VIG T2	3.35	.74	.88	.58**	-														
3. DED T1	3.70	.78	.87	.52**	.27**	-													
4. DED T2	3.74	.76	.87	.33**	.60**	.53**	-												
5. SB T1	2.50	.75	.73	-.37**	-.27**	-.23**	-.15**	-											
6. SB T2	2.51	.73	.72	-.33**	-.38**	-.19**	-.30**	.62**	-										
7. SS T1	3.42	.67	.71	.27**	.19**	.29**	.20**	-.27**	-.17**	-									
8. SS T2	3.39	.63	.71	.23**	.26**	.28**	.29**	-.18**	-.29**	.60**	-								
9. ACC T1	3.23	.52	.68	.10*	-.01	.09*	-.01	.12**	.10*	.12**	.09	-							
10. ACC T2	3.25	.47	.67	.01	.06	.09	.09*	.07	.18**	.06	.07	.49**	-						
11. DEF T1	1.20	.63	.72	-.33**	-.28**	-.32**	-.31**	.49**	.38**	-.32**	-.27**	.13**	.05	-					
12. DEF T2	1.96	.61	.73	-.31**	-.40**	-.27**	-.45**	.35**	.56**	-.25**	-.33**	.06	.14**	.62**	-				
13. PER T1	.30	.34	.76	-.22**	-.20**	-.04	-.07	.11**	.12**	-.08*	-.13**	.17**	.17**	.10*	.15**	-			
14. PER T2	1.32	.35	.76	-.19**	-.26**	.01	-.08	.09	.16**	-.10*	-.15**	.65**	.18**	.10*	.17**	.65**	-		
15. LSE T1	.48	.22	.77	-.25**	-.25**	-.21**	-.16**	.42**	.37**	-.22**	-.23**	.16**	.21**	.35**	.31**	.16**	.21**	-	
16. LSE T2	1.32	.27	.79	-.30**	-.38**	-.23**	-.24**	.53**	.60**	-.14**	-.19**	-.01	.07	.51**	.42**	-.01	.07	.51**	-

*p <.05; **p <.01

Note: T1: time one; T2: time two; VIG: vigor; DED; dedication; SB; self-blame; SS; seek support; ACC: accommodation; DEF: defense; PER; persistence; LSE; lack of self-esteem

Coping strategies

Table 2 shows the synchronous and longitudinal (with and without adjusting for the dependent variables at T1) relationship between the coping variables and the work engagement variables.

First, the synchronous equations: among the control variables, long working hours had a negative relation to vigor, whereas; increasing age had a positive relationship to dedication, and; gender was negatively related to dedication. In terms of the independent variables, seek support and accommodation were positively related to vigor and dedication, supporting H1 and H2. Furthermore, self-blame and defense were negatively related to vigor and dedication, which supports H3 and H4. The synchronous equation accounted for a significant proportion of the work engagement variables.

Second, our longitudinal equations not adjusted for the dependent variables: the control variables displayed the same relation to the dependent variables as in the synchronous analysis. As for the independent variables, self-blame had a negative relation to vigor, but not to dedication, which only partially supports H3. Defense was negatively related to both vigor and dedication and therefore supports H4. H1 and H2 were not supported by these longitudinal analyses. A significant amount of the variance of vigor and dedication was accounted for in these equations.

Third, the longitudinal equations adjusted for the dependent variables at T1: of the control variables, vigor (at T1) was positively related to vigor; gender was negatively associated to dedication, and; dedication (at T1) had a positive association to dedication. H4 was only partially supported, as defense were negatively associated to dedication, but not to vigor. None of the other independent variables had significant associations to the work engagement variables, hence, H1, H2 and H3 were rejected in these equations. It was accounted for a significant amount of variance of dedication in the longitudinal equation adjusted for dedication at T1.

Table 2: Hierarchical multiple regression analyzes: synchronous and lagged effects of coping strategies on work engagement (vigor and dedication) among nurses

	Vigor T1		Dedication T1		Vigor T2		Dedication T2		Vigor T2^c		Dedication T2^c	
	β	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2
Control variables												
Age	-0.06		0.14***		-0.07		0.13**		-0.01		0.07	
Gender	0.03		-0.26***		0.04		-0.24***		0.02		-0.12*	
Working hours T1	-0.10**		0.07		-0.12**		0.04		-0.07		-0.01	
(Dependent variable T1)									0.54***		0.46***	
		0.01		0.09***		0.02*		0.07***		0.33***		0.30***
Coping strategies												
Seek support T1	0.11*		0.16***		0.05		0.08		-0.06		0.08	
Accommodation T1	0.15***		0.13**		0.02		0.01		-0.05		-0.06	
Self-blame T1	-0.22***		-0.17***		-0.17**		-0.10		-0.02		0.08	
Defense T1	-0.23***		-0.18***		-0.19**		-0.22***		-0.07		-0.14**	
		0.20***		0.16***		0.11***		0.10***		0.01		0.02*
	$R^2 = 0.20$***		$R^2 = 0.24$***		$R^2 = 0.11$***		$R^2 = 0.16$***		$R^2 = 0.33$		$R^2 = 0.31$*	

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Notes: ^{c}: indicates that it is adjusted for the dependent variable T1; β: the standardized coefficients from the final stage of the analysis; ΔR^2: R^2 change, which represents the incremental proportion of variance accounted by the set of variables entered at that step; R^2: adjusted R square; Working hours: actual working hours per week; Age: pr. 01.01.2004; Gender: 0 = woman, 1 = man; T1: time one; T2: time two

Table 3 display the synchronous and longitudinal (with and without controlling for dependent variable at T1) relationships between the personality variables and the work engagement variables.

In the synchronous equations, the control variables had the following significant relationship to work engagement: age were negatively related to vigor but were positively related to dedication; gender was negatively associated to dedication, and; working hours had a positive relationship to dedication. As for the independent variables, persistence had a negative association to vigor, which rejects H5. However, H6 was supported, as lack of self-esteem had a negative relation vigor and dedication. The synchronous equations accounted for a significant amount of the work engagement variables.

In the longitudinal equations not controlling for the T1 dependent variables, the control variables displayed relations to work engagement as in the synchronous equations, except for working hours which had no significant relation to the dependent variables. Persistence and lack of self-esteem were both negatively associated to the work engagement variables, which rejects H5 but supports H6. These regression equations accounted for a significant amount of variance in vigor and dedication.

When adjusting for the T1 dependent variables in our longitudinal analysis, vigor (at T1) had a positive relation to vigor; age and dedication (at T1) was positively associated to dedication, and; gender had a negative relation to dedication. H5 was not supported in this regression model, as the hypothesized relationship did not reach statistical significance. Nevertheless, H6 was partially supported, as lack of self-esteem showed a negative association to vigor. It was accounted for a significant amount of variance of vigor at in the longitudinal regression equation adjusted for vigor at T1.

Table 3: Hierarchical multiple regression analyzes: synchronous and lagged effects of personality variables on work engagement (vigor and dedication) among nurses

	Vigor T1		Dedication T1		Vigor T2		Dedication T2		Vigor T2 [c]		Dedication T2b[c]	
	β	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2
Control variables												
Age	-0.08*		0.10**		-0.08*		0.13**		-0.01		0.09*	
Gender	0.03		-0.26***		0.04		-0.23***		0.02		-0.11*	
Working hours T1	-0.03		0.10*		-0.09		0.05		-0.07		0.01	
(Dependent variable T1)									0.54***		0.48***	
		0.01		0.08***		0.02*		0.07***		0.34***		0.30***
Personality variables												
Persistence T1	-0.18***		-0.05		-0.15**		-0.08		-0.05		-0.05	
Lack of self-esteem T1	-0.21***		-0.22***		-0.24***		-0.17***		-0.12*		-0.05	
		0.08***		0.06***		0.09***		0.04***		0.02*		0.01
	$R^2 = 0.08$***		$R^2 = 0.12$***		$R^2 = 0.10$***		$R^2 = 0.10$***		$R^2 = 0.34$*		$R^2 = 0.29$	

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Notes: [c]: indicates that it is controlled for the dependent variable T1; β: the standardized coefficients from the final stage of the analysis; ΔR^2: R^2 change, which represents the incremental proportion of variance accounted by the set of variables entered at that step; R^2: adjusted R square; Working hours: actual working hours per week; Age: pr. 01.01.2004; Gender: 0 = woman, 1 = man; T1: time one; T2: time two

Discussion

First, in the synchronous analysis, seek support was positively associated to vigor and dedication. This is in line with Van der Colff and Rothmann (2009) cross-sectional study, which showed that problem-focused coping, including seeking emotional/social support, predicted high work engagement. As such, it might indicate that nurses who have a low threshold to express feelings towards their colleagues and seek support in stressful situations at work are more likely to achieve work engagement. The lagged effects of this association, however, did not reach statistical significance. We also found that accommodation had a positive relation to vigor and dedication cross-sectionally. This might indicate the nurses which creates positive meanings of stressful encounters, focuses on personal growth, accepts and tolerate ambiguity and openly reflect upon goals, accomplished higher levels of work engagement. However, our analysis did not provide for significant longitudinal relationships between these variables. We could not find any other studies investigating the relationship between accommodation and work engagement. Therefore, further research is needed to strengthen this finding. Nevertheless, it could provide a possible explanation of why positive reappraisal (which can be seen as a type of accommodative coping) seems to be a coping strategy nurses often resort to (Lambert et al., 2007). Overall, our results may indicate that seek support and accommodation acts as personal resources for nurses which further act as highly advantageous tools for succeeding in mastering the nursing role, subsequently resulting in high work engagement.

Second, the emotion-focused coping strategies, self-blame and defense, were found to decrease vigor and dedication in our synchronous analyses. These findings could indicate that stress-resistant nurses less frequently use defensive strategies in handling their emotional reactions to stress (Boey, 1998), and therefore, work engagement might decrease when using these coping strategies. A possible explanation for this might be, as Carver, Scheier, and Weintraub (1989) argues, that emotion-focused strategies could be maladaptive because they focus on the source of distress and thus exacerbate it, or because they put off dealing with the problem. Our findings are supported by previous research where emotion-focused coping as avoidance and focus on and ventilation of emotions decreased nurses work engagement cross-sectionally (Van der Colff & Rothmann, 2009). However, future research is needed to confirm the incremental value of self-blame and defense in nurse work engagement. In the present study, self-blame also had a negative longitudinal association to vigor when not adjusting for the dependent variable, but not to dedication, nor to either vigor or dedication

when adjusting for the dependent variable. Thus, it seems that nurses who tend to criticize themselves and blame themselves for negative things that happen also experience less vigor over time. In addition, we found that defense was negatively associated to both vigor and dedication longitudinally, but not to vigor when adjusting for the dependent variable. We found no studies confirming these longitudinal relationships. Nevertheless, it is in line with the mechanisms of developing resource loss spirals outlined by the COR theory (Hobfoll, 1989), resulting in negative health outcomes and decreased work engagement.

Third, the negative synchronous and longitudinal association between persistence and vigor were somewhat surprising. Persistence had no lagged or synchronous relation to dedication, nor any longitudinal association to vigor when adjusting for the dependent variable. Given that burnout is the conceptual antipode to work engagement and that persistence is negatively associated to burnout (Mojsa-Kaja et al., 2015), our results do not confirm the assumption of that persistence is positively related to work engagement. An alternative explanation for this could be that persistent people might tend to overwork and push themselves too hard while working, resulting in decreased vigor, especially over time. As Maslach and Leiter (1997) argue, people do not begin a job feeling burnt out but that, initially, they are fully engaged, feeling energetic, involved, ready to commit their time and gain a great sense of achievement from their work. However, after some time of working hard and persistent, it can be too much and one's experience of vigor may decrease. Further research is needed to disclose the relation between persistence and engagement.

Fourth, in line with our expectations, lack of self-esteem was cross-sectionally and longitudinally associated with less vigor and dedication (however, not to dedication when adjusting for the dependent variable), which is also consistent with the notion of resource loss spirals proposed by the COR theory (Hobfoll, 1989). We found no studies investigating *lack* of self-esteem (or harm avoidance) in association to work engagement, but *high* self-esteem has previously found to be predicting work engagement (Mäkikangas et al., 2013).

Regarding the control variables, age was negatively related to vigor but positively related to dedication, both cross-sectionally and longitudinally. Thus, older nurses seem to be less vigorous, but more dedicated then their younger colleagues. Our results show a more nuanced image than other empirical studies where work engagement have been measured as a one-dimensional construct; increases with age have previously bee associated with higher work engagement (Schaufeli et al., 2006), including among medical-surgical nurses (Simpson, 2009). It seems somewhat logical that nurses gradually lose that vigorous energy as they get older, and that older nurses are more dedicated, maybe because those who are not

already have quit their jobs, i.e. the healthy worker effect (see Eisen, Picciotto, & Robins, 2006; Karasek & Theorell, 1990).

Further, we found that increasing number of working hours per week had a negative synchronous and longitudinal association to vigor, but positive relation to dedication cross-sectionally. These findings are both supported and not supported by previous studies which shows that increasing hours per work week increases work engagement in general among nurses (Mauno, Ruokolainen, Kinnunen, & De Bloom, 2016; Simpson, 2009). Again, our results give a more nuanced image, demonstrating that it is a difference between the two work engagement dimensions, vigor and dedication, and that measuring it as a one-dimensional construct may conceal important relationships when it comes to the prediction of work engagement.

It was somewhat interesting that the male nurses in the present study experienced less dedication than female nurses both cross-sectionally and longitudinally in all our regression equations, as Schaufeli et al. (2006) found that levels of engagement did not seem to differ systematically between both genders. However, the latter was in a sample that covered a range of occupational groups, not including nurses. Whether or not this discrepancy of findings is due to the profession as a nurse needs to be explored in future research.

Overall, our synchronous analyses provided more significant relationships than the longitudinal ones did. A possible explanation for this might be that the time lag in this study is shorter or longer than the underlying causal process for these variables, so that the antecedent has not yet had sufficient time to affect the outcome variable (if too short time lag) or other processes influencing the outcome variable has interfered (if too long time lag) (Taris, 2000). Although general rules of thumb regarding the appropriate length of the time lag in occupational health research do not exist (Taris & Kompier, 2014), the present findings suggest that a two-year lag is possibly not an appropriate length for some of the variables explored in this study. Further, our longitudinal analyses not adjusting for the dependent variable provided more significant relationships than the longitudinal analyses where it was adjusted for the dependent variable did. This might be due to that the work engagement variables were highly stable across time, thereby absorbing much of the variance, leaving very little for the independent variables to explain. This is a known stability effect also found in other longitudinal occupational health studies (Schaufeli & Enzmann, 1998; Vogt et al., 2013). Further research is needed to disclose the appropriate time lag and specific mechanism in nurse work engagement.

• • •

Limitations

The strengths of this study are the longitudinal design and the use of a large representative sample of both male and female nurses in Norway. However, there might be cultural as well as organizational differences between the respondents in this study and nurses form other countries. In Norway, health care is basically run by the public sector, which is not the case in many other countries, such as the United States, where health care is basically driven by private actors. Thus, health care services and working conditions for nurses might differ on several aspects cross-nationally. However, the impact these differences may have on nurse work engagement is unclear. Future research is needed to learn more about the impact of cross-national differences in the organization of health care and its influence on nurse engagement. Moreover, work engagement as measured by the OLBI does not include the dimension of absorption. Although vigor and dedication are considered core dimensions of engagement (González-Romá et al., 2006), the present findings must be interpreted with the disregard of absorption dimension in mind. Further, it should be noted that the study was conducted in 2003 and 2005, which constitutes a relatively long period of time between the data collection and now. However, an individuals' personality, coping strategies and work engagement is considered to be relatively stable over time (de Boo & Wicherts, 2009; Kirchner, Forns, Amador, & Muñoz, 2010; Schaufeli et al., 2002; Small, Hertzog, Hultsch, & Dixon, 2003; Sonnentag et al., 2010), and therefore it is reason to believe that our findings is equally relevant today and that it has not affected validity of the results.

Conclusion

Findings in this study provides knowledge on how to promote work engagement among nurse staff that further contribute to; (1) health and well-being among nurses, and; (2) several positive outcomes for the organization, including prevention of nurse turnover. Interventions to give extra support to persistent nurses and those with a lack of self-esteem, as well as nurses who are especially inclined to use self-blame and defense as coping strategies could strengthen their psychological capital and increase their chances of achieving work engagement. Thus, it could be necessary to periodically screen the work engagement status among the nurse staff to initiate interventions where needed. Moreover, our findings could indicate that it would be valuable to educate nurses in accommodative coping. It might also be advantageous to promote a culture for seeking support from colleagues and leaders when faced with difficult and stressful situations at work, as well as and a low threshold for helping each other. Initiating interventions to enhance nurse work engagement in terms of this is essential, as we need to promote nurse workforce stability to retain a justifiable health care system in the future. However, to find appropriate intervention goals, future research on narrow personal differences in relation to work engagement among nurses is warranted, as this seems like an understudied area.

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Appendix 1

The questionnaire and letters to the participants in the first survey

Retrieved from:

https://www.ssb.no/a/publikasjoner/pdf/notat_200448/notat_200448.pdf

Statistisk sentralbyrå
Statistics Norway

Seksjon for Intervjuundersøkelser
Postboks 8131 Dep., 0033 Oslo
Telefon: 21 09 00 00. Telefaks: 21 09 49 73

Undersøkelse om

belastninger, mestring og helse innenfor utsatte yrker

De fleste spørsmålene i dette skjemaet besvarer du ved å sette ett kryss i ruten ved det svaret du vil gi. Når du sender inn ferdig utfylt spørreskjema er du med i trekningen av et gavekort på 10 000 kroner,- og ti gavekort på 1 000 kroner. Gavekortene kan brukes i et utvalg butikker.

Lykke til med utfyllingen!

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YRKE OG ARBEIDSTID

Utvalget i denne undersøkelsen er trukket fra Statistisk sentralbyrås yrkesregister, men fordi registeret kan inneholde feil, ønsker vi likevel å spørre deg om yrket ditt.

1. **Hvilket yrke har du:**

2. **Hva går arbeidet ditt i hovedsak ut på:** _____

3. **Arbeider du i privat eller offentlig virksomhet?**
1 ☐ Privat
2 ☐ Offentlig

4. **Hva er din avtalte arbeidstid i gjennomsnitt per uke?**   ____ timer

5. **Hva er din faktiske arbeidstid i gjennomsnitt per uke?**   ____ timer

6. **Dersom du har mindre enn 100% stilling, skyldes det:**
1 ☐ Omsorgsoppgaver
2 ☐ For stor arbeidsbyrde ved full stilling
3 ☐ Helsemessige årsaker
4 ☐ Kombinasjon med uføretrygd
5 ☐ Annet

TIDSPRESS OG DIN INNFLYTELSE PÅ DIN ARBEIDSSITUASJON

7. **Hender det at du har så mye å gjøre at arbeidssituasjonen din blir oppjaget og masete, og i tilfelle hvor ofte?**
1 ☐ Sjelden eller aldri
2 ☐ I perioder, men ikke daglig
3 ☐ Daglig, mindre enn halvparten av arbeidstiden
4 ☐ Daglig, mer enn halvparten av arbeidstiden

8. **I hvilken grad kan du selv bestemme ditt arbeidstempo?**
1 ☐ I høy grad
2 ☐ I noen grad
3 ☐ I liten grad

9. **I hvilken grad kan du vanligvis selv bestemme eller planlegge rekkefølgen i dine arbeidsoppgaver i løpet av dagen?**
1 ☐ I høy grad
2 ☐ I noen grad
3 ☐ I liten grad

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10. Angi hvor ofte du synes at
(Sett ett kryss på hver linje)

		Aldri	Sjelden	Iblant	Ganske ofte	Ofte	Uaktuelt
		1	2	3	4	5	6
1	du har tilstrekkelig mulighet til å diskutere organiseringen av ditt eget arbeid	☐	☐	☐	☐	☐	☐
2	du har tilstrekkelig innflytelse på avgjørelser som gjelder din arbeidsplan	☐	☐	☐	☐	☐	☐
3	du har så mye innflytelse på arbeidet ditt at du kan utsette saker som var planlagt, f.eks. når du får for mye å gjøre	☐	☐	☐	☐	☐	☐
4	du arbeider under et uakseptabelt arbeidspress	☐	☐	☐	☐	☐	☐
5	du har så mange arbeidsoppgaver at det hindrer deg i å arbeide effektivt	☐	☐	☐	☐	☐	☐
6	du har problemer med å kunne gjøre spesielle oppgaver uten å bli forstyrret	☐	☐	☐	☐	☐	☐
7	du har mulighet for på kort varsel å ta deg fri eller avspasere en halv eller en hel dag	☐	☐	☐	☐	☐	☐

11. I hvilken grad stemmer følgende utsagn for ditt forhold til overordnete
Sett ett kryss på hver linje

		Stemmer ikke	Stemmer ganske dårlig	Stemmer delvis	Stemmer ganske godt	Stemmer helt	Uaktuelt
		1	2	3	4	5	6
1	Jeg har mulighet til å snakke med min nærmeste overordnete om vanskeligheter i arbeidet	☐	☐	☐	☐	☐	☐
2	Jeg får den oppmuntring og støtte jeg trenger av min nærmeste overordnete	☐	☐	☐	☐	☐	☐
3	Min nærmeste overordnete pleier å informere meg om forandringer av betydning for arbeidet mitt	☐	☐	☐	☐	☐	☐
4	Min nærmeste overordnete har samme syn som meg på hva min kompetanse består i	☐	☐	☐	☐	☐	☐
5	Min nærmeste overordnete legger til rette for at jeg skal kunne utvikle meg i jobben	☐	☐	☐	☐	☐	☐

12. Anerkjennelse av arbeidsinnsats. I hvilken grad opplever du at følgende utsagn stemmer for deg?
Sett ett kryss på hver linje

		Stemmer ikke	Stemmer ganske dårlig	Stemmer delvis	Stemmer ganske godt	Stemmer helt	Uaktuelt
		1	2	3	4	5	6
1	Der jeg arbeider har ledelsen store muligheter for å belønne god arbeidsinnsats	☐	☐	☐	☐	☐	☐
2	Jeg får ofte ros og anerkjennelse fra mine overordnete	☐	☐	☐	☐	☐	☐
3	Jeg får ofte ros og anerkjennelse fra kolleger og arbeidskamerater	☐	☐	☐	☐	☐	☐
4	Jeg får ofte ros og anerkjennelse fra andre som jeg har med å gjøre i jobben (kunder, klienter, elever, samarbeidspartnere, etc.)	☐	☐	☐	☐	☐	☐
5	Jeg synes lønnen min står i rimelig forhold til mitt ansvar og innsats på jobben	☐	☐	☐	☐	☐	☐

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TILKNYTNING TIL ARBEIDET

19. I hvilken grad stemmer beskrivelsene nedenfor med dine egne opplevelser den siste måneden?

Sett ett kryss på hver linje

	Stemmer ikke (1)	Stemmer ganske dårlig (2)	Stemmer delvis (3)	Stemmer ganske godt (4)	Stemmer helt (5)	Uaktuelt (6)
1 Jeg føler at arbeidet tømmer meg følelsesmessig	☐	☐	☐	☐	☐	☐
2 Jeg føler meg full av kraft og energi	☐	☐	☐	☐	☐	☐
3 Jeg føler meg sliten når jeg står opp om morgenen og vet at jeg må på jobb	☐	☐	☐	☐	☐	☐
4 Jeg føler at jeg har positiv innflytelse på andre menneskers liv gjennom det jeg gjør i jobben	☐	☐	☐	☐	☐	☐
5 Jeg føler meg oppbrukt når arbeidsdagen er over	☐	☐	☐	☐	☐	☐
6 Jeg synes ikke jeg strekker meg for langt for å klare kravene i jobben	☐	☐	☐	☐	☐	☐
7 Jeg føler meg frustrert i jobben	☐	☐	☐	☐	☐	☐
8 Jeg får ikke brukt ressursene mine så godt som jeg burde i jobben	☐	☐	☐	☐	☐	☐
9 Jeg har gjort mye som er verdt innsatsen i denne jobben	☐	☐	☐	☐	☐	☐

	Stemmer ikke (1)	Stemmer ganske dårlig (2)	Stemmer delvis (3)	Stemmer ganske godt (4)	Stemmer helt (5)	Uaktuelt (6)
10 Jeg føler meg utbrent i denne jobben	☐	☐	☐	☐	☐	☐
11 Jeg føler meg som regel kvikk og opplagt i jobben	☐	☐	☐	☐	☐	☐
12 Jeg får ikke utrettet stort i denne jobben	☐	☐	☐	☐	☐	☐
13 Det som før var utfordrende i jobben er nå mest en plage	☐	☐	☐	☐	☐	☐
14 Jeg føler at jeg ikke orker stort mer i denne jobben	☐	☐	☐	☐	☐	☐
15 I jobben har jeg en god følelse av å være til nytte	☐	☐	☐	☐	☐	☐
16 Jeg har som regel overskudd til fritidssysler når jeg kommer hjem etter endt arbeidsdag	☐	☐	☐	☐	☐	☐
17 Jeg føler at mye av det jeg gjør i jobben er ganske bortkastet	☐	☐	☐	☐	☐	☐
18 Jeg føler ikke at jeg arbeider for hardt i jobben	☐	☐	☐	☐	☐	☐

	Stemmer ikke (1)	Stemmer ganske dårlig (2)	Stemmer delvis (3)	Stemmer ganske godt (4)	Stemmer helt (5)	Uaktuelt (6)
19 Det er en god balanse mellom de kreftene jeg investerer i arbeidet og de jeg investerer i livet for øvrig	☐	☐	☐	☐	☐	☐
20 Det er virkelig stressende for meg å jobbe hele dagen	☐	☐	☐	☐	☐	☐
21 Jeg løser problemer som oppstår på jobben på en effektiv måte	☐	☐	☐	☐	☐	☐
22 Jeg synes jeg bidrar effektivt til å løse bedriftens oppgaver	☐	☐	☐	☐	☐	☐
23 Jeg er mindre interessert i jobben nå enn da jeg begynte i den	☐	☐	☐	☐	☐	☐
24 Etter hvert er jeg blitt mindre entusiastisk når det gjelder jobben	☐	☐	☐	☐	☐	☐
25 Jeg synes jeg gjør en god jobb	☐	☐	☐	☐	☐	☐
26 Jeg føler meg oppløftet når jeg får til noe på jobben	☐	☐	☐	☐	☐	☐
27 Jeg vil bare gjøre jobben min og ikke noe mer	☐	☐	☐	☐	☐	☐

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Spørsmål om **TILKNYTNING TIL ARBEIDET** fortsetter:

I hvilken grad stemmer beskrivelsene nedenfor med dine egne opplevelser den siste måneden?
Sett ett kryss på hver linje

		Stemmer ikke 1	Stemmer ganske dårlig 2	Stemmer delvis 3	Stemmer ganske godt 4	Stemmer helt 5	Uaktuelt 6
28	Det hender stadig oftere at jeg snakker nedsettende om jobben	☐	☐	☐	☐	☐	☐
29	Jeg trenger mer tid nå enn tidligere for å hente meg inn etter jobben	☐	☐	☐	☐	☐	☐
30	Jeg klarer belastninger i arbeidet mitt bra	☐	☐	☐	☐	☐	☐
31	I det siste har jeg arbeidet stadig mer mekanisk og tenkt mindre gjennom oppgavene	☐	☐	☐	☐	☐	☐
32	Jeg ser på jobben min som en utfordring	☐	☐	☐	☐	☐	☐
33	Med tiden har jeg mistet den dype interessen for arbeidet mitt	☐	☐	☐	☐	☐	☐
34	Av og til byr arbeidsoppgavene meg rett og slett i mot	☐	☐	☐	☐	☐	☐
35	Jeg kan ikke tenke meg noe annet yrke enn mitt eget	☐	☐	☐	☐	☐	☐
36	Jeg har glede av arbeidet jeg gjør	☐	☐	☐	☐	☐	☐
37	Jobben min engasjerer meg	☐	☐	☐	☐	☐	☐

SOSIAL DELTAKELSE

14. Hvor ofte har du kontakt med slekt eller venner som du ikke bor sammen med?
Sett ett kryss

1 ☐ Sjeldnere enn en gang i året
2 ☐ En eller flere ganger i året, men ikke hver måned
3 ☐ Omtrent hver måned, men ikke hver uke
4 ☐ Omtrent hver uke, men ikke daglig
5 ☐ Flere ganger i uka eller daglig

15. Har du noen personer du kan snakke helt fortrolig med?

1 ☐ Nei
2 ☐ Ja, en
3 ☐ Ja, flere

ULIKE HELSEPLAGER

16. Har du i løpet av den siste måneden vært plaget av:
Sett ett kryss på hver linje

		Ikke plaget 0	Litt plaget 1	Ganske mye plaget 2	Veldig mye plaget 3
1	Nakkesmerter	☐	☐	☐	☐
2	Smerter øverst i ryggen	☐	☐	☐	☐
3	Smerter i korsrygg	☐	☐	☐	☐
4	Smerter i armene	☐	☐	☐	☐
5	Smerter i skuldre	☐	☐	☐	☐
6	Smerter i føttene	☐	☐	☐	☐
7	Fordøyelsesproblemer	☐	☐	☐	☐
8	Brystsmerter	☐	☐	☐	☐
9	Andre plager	☐	☐	☐	☐

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17. Nedenfor finner du en liste med plager og problemer som man av og til kan ha
Angi hvor mye hvert enkelt problem har plaget deg eller vært til besvær i løpet av den siste måneden.
Sett ett kryss på hver linje

		Ikke plaget 1	Litt plaget 2	Ganske mye plaget 3	Veldig mye plaget 4
1	Hodepine	☐	☐	☐	☐
2	Skjelving	☐	☐	☐	☐
3	Matthet eller svimmelhet	☐	☐	☐	☐
4	Nervøsitet, indre uro	☐	☐	☐	☐
5	Plutselig frykt uten grunn	☐	☐	☐	☐
6	Stadig redd eller engstelig	☐	☐	☐	☐
7	Hjertebank, hjerteslag som løper av gårde	☐	☐	☐	☐
8	Følelse av å være anspent, oppjaget	☐	☐	☐	☐
9	Anfall av angst eller panikk	☐	☐	☐	☐
10	Så rastløs at det er vanskelig å sitte stille	☐	☐	☐	☐
11	Mangel på energi, alt går langsommere enn vanlig	☐	☐	☐	☐
12	Lett for å klandre deg selv	☐	☐	☐	☐
13	Lett for å gråte	☐	☐	☐	☐
14	Tanker om å ta ditt liv	☐	☐	☐	☐
15	Dårlig matlyst	☐	☐	☐	☐
16	Søvnproblemer	☐	☐	☐	☐
17	Følelse av håpløshet med tanke på fremtiden	☐	☐	☐	☐
18	Nedtrykt, tungsindig	☐	☐	☐	☐
19	Følelse av ensomhet	☐	☐	☐	☐
20	Tap av seksuell lyst og interesse	☐	☐	☐	☐
21	Følelse av å være lurt i en felle eller fanget	☐	☐	☐	☐
22	Mye bekymret eller urolig	☐	☐	☐	☐
23	Uten interesse for noe	☐	☐	☐	☐
24	Følelse av at alt er et slit	☐	☐	☐	☐
25	Følelse av å være unyttig	☐	☐	☐	☐

18. Hvor mange dager har du vært borte fra jobb de siste 6 måneder grunnet egen sykdom?

Antall dager:_____

Dersom du ikke har hatt sykefravær de siste 6 måneder, gå direkte videre til spørsmål 20

19. Hvis du har hatt sykefravær de siste 6 månedene, i hvilken grad skyldes det

Sett ett kryss på a) og ett på b)

a) fysisk arbeidspress?

1 ☐ I høy grad
2 ☐ I noen grad
3 ☐ I liten grad
4 ☐ Ikke i det hele tatt

b) psykisk arbeidspress?

1 ☐ I høy grad
2 ☐ I noen grad
3 ☐ I liten grad
4 ☐ Ikke i det hele tatt

20. Føler du at du får nok søvn?

1 ☐ Ja
2 ☐ Nei

21. Hvor mange timer antar du at du i gjennomsnitt har sovet per natt den siste måneden?

Antall timer:_____ per natt

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PERSONLIGE KJENNETEGN OG INNSTILLINGER

22. Nedenfor følger noen utsagn om personlige kjennetegn og innstillinger
Marker for hvert av utsagnene om du synes disse stemmer eller ikke stemmer for deg.

		Stemmer ikke 0	Stemmer 1
1	Jeg er svært var for hva andre mennesker tenker og mener om meg	☐	☐
2	Tiltro til meg selv mangler jeg heldigvis ikke	☐	☐
3	Ofte synes det som om andre gjør allting mye bedre enn jeg selv	☐	☐
4	Jeg er svært nærtagende for kritikk	☐	☐
5	Jeg mister lett motet når tingene går galt	☐	☐
6	Skjer det brått uventede ting, kan jeg bli ful stendig forvirret	☐	☐
7	Min sinnsstemning forandrer seg lett alt etter hva som skjer rundt meg	☐	☐
8	Min mangel på selvtillit kan av og til være en plage for meg	☐	☐
9	Folk kan skjelle meg ut ganske kraftig før det går særlig inn på meg	☐	☐
10	Jeg kunne sannsynligvis oppnå mer enn jeg gjør, men jeg ser ikke poenget med å presse meg hardere enn nødvendig for å henge med	☐	☐
11	Jeg er vanligvis så målbevisst at jeg fortsetter å arbeide lenge etter at andre har gitt opp	☐	☐
12	Jeg arbeider hardere enn de fleste	☐	☐
13	Vanligvis driver jeg meg hardere enn de fleste fordi jeg vil gjøre det så bra som mulig	☐	☐
14	Jeg driver ofte meg selv til jeg stuper eller prøver å gjøre mer enn jeg virkelig makter	☐	☐

23. Hvordan stemmer disse påstandene for deg?
Sett ett kryss på hver linje

		Stemmer ikke 1	Stemmer ganske dårlig 2	Stemmer delvis 3	Stemmer ganske godt 4	Stemmer helt 5
1	Det er svært viktig for meg å yte mitt aller beste i jobben	☐	☐	☐	☐	☐
2	Jeg jobber først og fremst for å tjene penger	☐	☐	☐	☐	☐
3	Hvis jeg mislykkes i jobben, er jeg en mislykket person	☐	☐	☐	☐	☐
4	Hvis jeg ikke gjør det virkelig bra i jobben vil jeg miste andres respekt	☐	☐	☐	☐	☐
5	Forpliktelsene i jobben må gå foran andre forpliktelser og behov	☐	☐	☐	☐	☐
6	Jeg er nødt til å lykkes i arbeidet for å føle meg verdifull	☐	☐	☐	☐	☐
7	Med mine ressurser vil jeg lett kunne påvirke verdier og strategier i en arbeidsorganisasjon	☐	☐	☐	☐	☐
8	Jeg har vanligvis hatt store ambisjoner i arbeidet mitt	☐	☐	☐	☐	☐
9	Jeg setter meg vanligvis høye og langsiktige mål, i arbeide; og ellers	☐	☐	☐	☐	☐
10	Jeg har alltid hatt tro på egne krefter	☐	☐	☐	☐	☐
11	Hva jeg selv gjør til enhver tid, betyr ikke så mye for hva som skjer	☐	☐	☐	☐	☐

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Spørsmål 23. fortsetter:
Hvordan stemmer disse påstandene for deg?
Sett ett kryss på hver linje

	Stemmer ikke 1	Stemmer ganske dårlig 2	Stemmer delvis 3	Stemmer ganske godt 4	Stemmer helt 5
12 Det er godt samsvar mellom mine egne yrkesverdier og verdiene i arbeidsorganisasjonen	☐	☐	☐	☐	☐
13 Jeg identifiserer meg sterkt med organisasjonens mål og rammer for arbeidet	☐	☐	☐	☐	☐
14 Jeg føler ofte at jeg må gå på akkord med mine verdier for å mestre kravene i arbeidet	☐	☐	☐	☐	☐
15 Samsvaret mellom organisasjonens og mine egne mål gir en god følelse av fellesskap	☐	☐	☐	☐	☐
16 Organiseringen av arbeidet tillater meg ikke å bruke mine kunnskaper og ressurser på en effektiv måte	☐	☐	☐	☐	☐

24. **Hvilke av følgende situasjoner/faktorer på jobb har du opplevd som belastende det siste året?**
Med belastende mener vi opplevelse av stress og negative følelser, for eksempel i form av usikkerhet, irritasjon og anspenthet
Sett ett kryss på hver linje

	Ikke belastende 1	Litt belastende 2	En del belastende 3	Ganske belastende 4	Svært belastende 5
1 Ansvaret jeg har i jobben	☐	☐	☐	☐	☐
2 Konflikter med kolleger/medarbeidere	☐	☐	☐	☐	☐
3 Urettferdig fordeling av stillinger, oppgaver, lønn eller fordeler	☐	☐	☐	☐	☐
4 Andres urealistiske forventninger til meg i min rolle	☐	☐	☐	☐	☐
5 Krav om effektivisering	☐	☐	☐	☐	☐
6 Krav om å holde meg faglig à jour	☐	☐	☐	☐	☐
7 Stadige forandringer i jobbens rammevilkår (reformer, lovendringer, etc)	☐	☐	☐	☐	☐
8 Konflikt mellom yrkesetiske verdier og krav om produksjon og effektivitet	☐	☐	☐	☐	☐
9 Kontakt med mennesker (pasienter, elever, klienter, kunder)	☐	☐	☐	☐	☐
10 Uregelmessig arbeidstid	☐	☐	☐	☐	☐
11 Å få til balanse mellom arbeid og privatliv	☐	☐	☐	☐	☐
12 Å stadig måtte ta med seg arbeidsoppgaver hjem	☐	☐	☐	☐	☐
13 Jobben går ut over sosialt liv	☐	☐	☐	☐	☐
14 Mangel på støtte hjemmefra, særlig fra ektefelle/samboer	☐	☐	☐	☐	☐
15 Bekymring for egen økonomi	☐	☐	☐	☐	☐

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MESTRINGSSTRATEGIER

25. Nedenfor står en rekke utsagn som beskriver hvordan man kan mestre situasjoner når det røyner på og man virkelig opplever stress eller påkjenning. Hvor godt passer hvert av disse utsagnene for ditt vedkommende?
Sett ett kryss på hver linje

	Passer ikke 1	Passer mindre godt 2	Både og 3	Passer ganske godt 4	Passer svært godt 5
1 Jeg prøver å inngå en slags avtale eller en overenskomst for å få noe positivt ut av situasjonen	☐	☐	☐	☐	☐
2 Jeg klandrer meg selv	☐	☐	☐	☐	☐
3 Jeg håper det vil skje et under	☐	☐	☐	☐	☐
4 Jeg prøver å se det positive i det hele; aldri så galt at det ikke er godt for noe	☐	☐	☐	☐	☐
5 Jeg skulle ønske jeg var sterkere, mer optimistisk og hadde mer krefter	☐	☐	☐	☐	☐
6 Jeg forsøker å ikke brenne alle broer, men lar flere muligheter stå åpne	☐	☐	☐	☐	☐
7 Jeg forsøker å holde følelsene mine for meg selv	☐	☐	☐	☐	☐
8 Jeg forandrer meg eller vokser som menneske på en god måte	☐	☐	☐	☐	☐
9 Jeg ønsker jeg kunne forandre måten min å føle på	☐	☐	☐	☐	☐
10 Jeg legger en handlingsplan og følger den	☐	☐	☐	☐	☐
11 Jeg får hjelp av fagfolk	☐	☐	☐	☐	☐

	Passer ikke 1	Passer mindre godt 2	Både og 3	Passer ganske godt 4	Passer svært godt 5
12 Jeg kritiserer eller sier til meg selv hva jeg burde ha gjort	☐	☐	☐	☐	☐
13 Jeg godtar det som er det nest beste i forhold til det jeg egentlig hadde ønsket	☐	☐	☐	☐	☐
14 Jeg dagdrømmer eller tenker meg inn i en bedre tid eller et bedre sted enn den/der du er nå	☐	☐	☐	☐	☐
15 Jeg tenker at jeg kommer sterkere og bedre rustet ut av hendelsen enn jeg gikk inn i den	☐	☐	☐	☐	☐
16 Jeg sover mer enn vanlig	☐	☐	☐	☐	☐
17 Jeg har fantasier eller ønsker om hvordan det skal gå til slutt	☐	☐	☐	☐	☐
18 Jeg forsøker å la være å handle overilt eller følge min første innskytelse	☐	☐	☐	☐	☐
19 Jeg snakker med noen som kan gjøre noe med problemet	☐	☐	☐	☐	☐
20 Jeg gjør en forandring slik at det vil gå bra til slutt	☐	☐	☐	☐	☐
21 Jeg spør en slektning eller en venn jeg respekterer om råd	☐	☐	☐	☐	☐
22 Jeg forsøker å få det bedre ved å spise, drikke, røyke, ta medisiner e.l.	☐	☐	☐	☐	☐
23 Jeg innser at jeg selv har skapt problemer	☐	☐	☐	☐	☐

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Spørsmål 25 fortsetter:
Hvor godt passer hvert av disse utsagnene for ditt vedkommende?
Sett ett kryss på hver linje

	Passer ikke 1	Passer mindre godt 2	Både og 3	Passer ganske godt 4	Passer svært godt 5
24 Jeg unngår å være sammen med andre mennesker.	☐	☐	☐	☐	☐
25 Jeg godtar følelsene mine, men forsøker å unngå at de virker for mye inne på andre ting.	☐	☐	☐	☐	☐
26 Jeg ønsker at situasjonen skulle bli borte eller på et eller annet vis gå over av seg selv.	☐	☐	☐	☐	☐
27 Jeg lar ikke andre få vite hvor ille det er.	☐	☐	☐	☐	☐
28 Jeg forandrer noe ved meg selv så jeg takler situasjonen bedre.	☐	☐	☐	☐	☐
29 Jeg snakker med noen om hvordan jeg har det.	☐	☐	☐	☐	☐
30 Jeg nekter å tro at det har hendt.	☐	☐	☐	☐	☐

ARBEID OG FRITID

26. I hvilken grad opplever du at følgene utsagn stemmer for deg?
Sett et kryss på hver linje

	Stemmer ikke 1	Stemmer ganske dårlig 2	Stemmer delvis 3	Stemmer ganske godt 4	Stemmer helt 5
1 Min jobb gjør at jeg bidrar mindre hjemme.	☐	☐	☐	☐	☐
2 Stress på jobben gjør meg irritabel hjemme.	☐	☐	☐	☐	☐
3 Jobben gjør meg for trøtt til å gjøre ting som trenger min oppmerksomhet hjemme.	☐	☐	☐	☐	☐
4 Bekymringer eller problemer på jobben distraherer meg hjemme.	☐	☐	☐	☐	☐
5 Mine oppgaver på jobb gjør det lettere å takle personlige og praktiske problemer hjemme.	☐	☐	☐	☐	☐
6 Mine oppgaver på jobb gjør meg til en mer interessant person hjemme.	☐	☐	☐	☐	☐
7 Å ha en god dag på jobb gjør meg til en bedre partner når jeg kommer hjem.	☐	☐	☐	☐	☐
8 Ferdigheter jeg utvikler på jobb kommer til nytte hjemme.	☐	☐	☐	☐	☐
9 Forpliktelser hjemme reduserer min kapasitet på jobb.	☐	☐	☐	☐	☐
10 Personlige og familiære problemer/bekymringer distraherer meg på jobb.	☐	☐	☐	☐	☐
11 Forpliktelser hjemme hindrer meg i å få tilstrekkelig med søvn som jeg behøver for å kunne gjøre en god jobb.	☐	☐	☐	☐	☐
12 Stress hjemme gjør meg irritabel på jobb.	☐	☐	☐	☐	☐
13 Det å snakke med noen hjemme hjelper meg å takle problemer på jobb.	☐	☐	☐	☐	☐
14 Ferdigheter jeg utvikler hjemme, er nyttige på jobb.	☐	☐	☐	☐	☐
15 Kjærlighet og respekt som jeg får hjemme, gjør meg sikker på meg selv når jeg er på jobb.	☐	☐	☐	☐	☐
16 Livet hjemme hjelper meg å slappe av og lade opp for neste dags jobb.	☐	☐	☐	☐	☐

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UTFORDRINGER I KONTAKT MED ANDRE MENNESKER

27. **Her er en liste med problemer folk angir å ha i omgang med andre mennesker. Vennligst les listen under og marker i hvilken grad disse situasjonene oppleves som vanskelige for deg**
 Sett ett kryss på hver linje

	Ikke vanskelig 0	Litt vanskelig 1	Både og 2	Ganske vanskelig 3	Veldig vanskelig 4
I. Det er vanskelig for meg å					
1 stole på andre mennesker.............................	☐	☐	☐	☐	☐
2 delta i gruppe..	☐	☐	☐	☐	☐
3 holde ting hemmelig for andre mennesker.........	☐	☐	☐	☐	☐
4 be en person om å slutte å plage meg..............	☐	☐	☐	☐	☐
5 presentere meg for nye mennesker...................	☐	☐	☐	☐	☐
6 være uenig med andre mennesker....................	☐	☐	☐	☐	☐
7 fortelle personlige ting til andre mennesker.......	☐	☐	☐	☐	☐
8 være bestemt når jeg trenger å være det..........	☐	☐	☐	☐	☐
9 sette grenser overfor andre mennesker............	☐	☐	☐	☐	☐
10 føle nærhet til andre..................................	☐	☐	☐	☐	☐
11 virkelig bry meg om problemer andre mennesker har...	☐	☐	☐	☐	☐
12 slappe av og kose meg når jeg går ut med andre...	☐	☐	☐	☐	☐
13 tillate meg å kjenne meg sint på noen jeg liker...	☐	☐	☐	☐	☐
14 ta imot råd og ordrer fra folk som har myndighet over meg...	☐	☐	☐	☐	☐
15 glede meg over et annet menneskes lykke........	☐	☐	☐	☐	☐
16 la andre få vite når jeg er sint......................	☐	☐	☐	☐	☐
17 gi konstruktiv kritikk til andre......................	☐	☐	☐	☐	☐
18 åpne meg og snakke om følelsene mine til andre...	☐	☐	☐	☐	☐
19 ta hensyn til mitt eget beste når en annen blir krevende...	☐	☐	☐	☐	☐
20 være trygg på meg selv når jeg er sammen med andre...	☐	☐	☐	☐	☐

	Stemmer ikke	Stemmer ganske dårlig	Stemmer delvis	Stemmer ganske godt	Stemmer helt
	1	2	3	4	5
II Følgende er ting du gjør mye:					
21 jeg krangler for mye med andre mennesker.......	☐	☐	☐	☐	☐
22 jeg føler meg for ofte ansvarlig for å løse andres problemer...	☐	☐	☐	☐	☐
23 jeg er for åpen overfor andre mennesker..........	☐	☐	☐	☐	☐
24 jeg er for aggressiv mot andre mennesker.........	☐	☐	☐	☐	☐
25 jeg prøver for sterkt å tekkes andre mennesker...	☐	☐	☐	☐	☐
26 jeg lar for ofte andres behov gå foran mine egne...	☐	☐	☐	☐	☐
27 jeg mister beherskelsen for lett.....................	☐	☐	☐	☐	☐
28 jeg beskylder meg selv for ofte for å være skyld i andres problemer...	☐	☐	☐	☐	☐
29 jeg holder folk for mye på avstand.................	☐	☐	☐	☐	☐
30 jeg lar andre mennesker i for høy grad utnytte meg...	☐	☐	☐	☐	☐
31 jeg føler meg for ofte flau overfor andre mennesker...	☐	☐	☐	☐	☐
32 jeg bekymrer meg for mye for hvordan andre skal reagere på meg...	☐	☐	☐	☐	☐

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LIVSHENDELSER

28a. **Nedenfor følger en liste over hendelser en kan oppleve i løpet av livet.**
Hvis du har erfart noe av dette, sett kryss i ruten

1 ☐ Partners død
2 ☐ Barns død
3 ☐ Andre nære personers død
4 ☐ Alvorlig sykdom hos et nærstående familiemedlem
5 ☐ Store økonomiske problemer
6 ☐ En opprivende separasjon/skilsmisse
7 ☐ Alvorlig fysisk sykdom (egen)
8 ☐ Vært utsatt for en alvorlig ulykke (trafikkulykke, brann, osv.)
9 ☐ Langvarige samlivsproblemer/familieproblemer

28b. Har du eventuelt hatt noen du kunne dele dine tanker med, søke råd hos og få støtte og
oppmuntring hos i disse situasjonene?
1 ☐ Ja
2 ☐ Nei

29. **Omtrent hvor ofte drikker du alkohol?**
0 ☐ Hver dag eller nesten hver dag
1 ☐ 2-4 ganger i uken
2 ☐ Omtrent en gang i uken
3 ☐ 2-3 ganger i måneden
4 ☐ Omtrent en gang i måneden
5 ☐ Sjeldnere enn en gang i måneden
6 ☐ Aldri i løpet av siste år

30. **Hvilke røykevaner har du?**
1 ☐ Røyker daglig
2 ☐ Røyker av og til
3 ☐ Har røykt, men sluttet for mer enn 6 måneder siden
4 ☐ Røyker ikke

31. **Driver du vanligvis med noen form for mosjon eller trening?**
1 ☐ Drev regelmessig med mosjon/trening før, men sluttet for mindre enn 2 år siden
2 ☐ Nei, driver ingen form for mosjon eller trening
3 ☐ Ja, 1-2 ganger i uken
4 ☐ Ja, 3-4 ganger i uken
5 ☐ Ja, 5-7 ganger i uken

32. **Hva er din sivilstand?**
1 ☐ Gift/registrert partner
2 ☐ Samboende
3 ☐ Separert
4 ☐ Skilt
5 ☐ Enke/enkemann
6 ☐ Ugift

33. **Har du barn?**
1 ☐ Ja   Hvor mange? _____   Hvor gammelt er ditt yngste barn? _____ år
                                      Hvor gammelt er ditt eldste barn? _____ år
2 ☐ Nei

Takk for at du tok deg tid til å delta i denne spørreundersøkelsen!

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IO-brev

Oslo, oktober 2003
Saksbehandlere: Sven Skaare og Elise Wedde
Seksjon for intervjuundersøkelser

9   Undersøkelse om belastninger, mestring og helse innenfor utsatte yrker

Statistisk sentralbyrå gjennomfører i høst en undersøkelse om belastninger, mestring og helse i åtte utvalgte yrkesgrupper, der i blant [*navn på gruppe*]. Formålet med undersøkelsen er å belyse hvordan personer i antatt utsatte yrkesgrupper opplever forholdet mellom utfordringer og belastninger i arbeidet og sin egen fysiske, og særlig psykiske helse. Hensikten er blant annet å få bedre forståelse for den såkalte utbrenningsprosessen, som de senere årene har vært mye omtalt i media. Undersøkelsen gjennomføres på oppdrag fra Den norske lægeforening. Vi tar sikte på å følge opp med et nytt intervju om to år.

Du er en av 1 000 [*navn på gruppe*]som er trukket ut fra Statistisk sentralbyrås sysselsettingsregister. Til sammen er 8 000 personer trukket ut. **Alle som deltar i årets undersøkelse blir med i trekkingen av ett gavekort til en verdi av 10 000 kroner og ti gavekort til en verdi av 1000 kroner.** Det er frivillig å delta, men for at vi skal få så gode resultater som mulig, er det viktig at alle som er trukket ut blir med. **Vi kan ikke erstatte deg med en annen.** Du kan når som helst trekke deg fra undersøkelsen og kreve opplysningene slettet.

Alle som arbeider i Statistisk sentralbyrå har taushetsplikt. Undersøkelsen gjennomføres etter lovpålagte regler og Statistisk sentralbyrå er underlagt kontroll både fra Datatilsynet og vårt eget personvernombud. Det vil aldri bli kjent utenfor Statistisk sentralbyrå hva enkeltpersoner har svart på undersøkelsen. For å få bedre uthytte av informasjonen vi samler inn, vil vi hente inn opplysninger fra Statistisk sentralbyrås inntekts- og utdanningsregister. Innen utgangen av 2006 vil vi anonymisere datamaterialet slik at identifisering av den enkelte ikke er mulig. Den norske lægeforening vil kun få tilgang til anonymiserte data.

Vi ber deg vennligst svare på spørsmålene i spørreskjemaet og returnere det til Statistisk sentralbyrå i den vedlagt frankerte svarkonvolutten så snart som mulig. Har du spørsmål om undersøkelsen kan du gjerne ringe oss gratis på **telefonnummer 800 83 028**, eller sende en e-post til sven.skaare@ssb.no eller elise.wedde@ssb.no. Spørsmål vedrørende personvern kan rettes til Statistisk sentralbyrås personvernombud, tel 21 09 00 00 eller e-post personvernombud@ssb.no.

På forhånd takk!
Vennlig hilsen

Svein Longva
administrerende direktør

Ole Sandvik
seksjonssjef

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Oslo, oktober 2003
Saksbehandlarar: Sven Skaare og Elise Wedde
Seksjon for intervjuundersøkingar

10 Undersøking om belastningar, meistring og helse innanfor utsette yrke

Statistisk sentralbyrå gjennomfører i haust ei undersøking om belastningar, meistring og helse i åtte utvalde yrkesgrupper, mellom anna [*navn på gruppe*]. Formålet med undersøkinga er å sjå nærare på korleis personar i sannsynleg utsette yrkesgrupper opplever forholdet mellom utfordringar og belastningar i arbeidet og si eiga fysiske, og særleg psykiske helse. Formålet er mellom anna å få betre forståing for den såkalla utbrenningsprosessen, som dei seinare åra har vore mykje omtala i media. Undersøkinga blir gjennomført på oppdrag frå Den norske lægeforening. Vi tek sikte på å følgje opp med eit nytt intervju om to år.

Du er ein av 1 000 [*navn på gruppe*] som er trekt ut frå sysselsetjingsregisteret i Statistisk sentralbyrå. Til saman er 8 000 personar trekte ut. **Alle som er med i undersøkinga i år blir med i trekninga av eitt gåvekort til ein verdi av 10 000 kroner og ti gåvekort til ein verdi av 1 000 kroner.** Det er frivillig å vere med, men for at vi skal få så gode resultat som råd er, er det viktig at alle som er trekte ut blir med. **Vi kan ikkje erstatte deg med ein annan.** Du kan når som helst trekkje deg frå undersøkinga og krevje opplysningane sletta.

Alle som arbeider i Statistisk sentralbyrå har teieplikt. Undersøkinga blir gjennomført etter lovpålagde reglar og Statistisk sentralbyrå er underordna kontroll både frå Datatilsynet og vårt eige personvernombod. Det vil aldri bli kjent utanfor Statistisk sentralbyrå kva enkeltpersonar har svart på undersøkinga. For å få betre utbytte av informasjonen vi samlar inn, vil vi hente inn opplysningar frå inntekts- og utdanningsregisteret i Statistisk sentralbyrå. Innan utgangen av 2006 vil vi anonymmisere datamaterialet slik at identifisering av den enkelte ikkje er mogeleg. Vi vil aldri offentleggjere eller formidle vidare opplysningar om kva den enkelte har svart. Den norske lægeforening vil berre få tilgang til anonymmiserte data.

Vi ber deg vere vennleg å svare på spørsmåla i spørjeskjemaet og returnere det til Statistisk sentralbyrå i den frankerte svarkonvolutten som ligg ved så snart som mogleg. Har du spørsmål om undersøkinga kan du gjerne ringe oss gratis på **telefonnummer 800 83 028**, eller sende ein e-post til sven.skaare@ssb.no eller elise.wedde@ssb.no. Spørsmål som gjeld personvern kan rettast til personvernombodet i Statistisk sentralbyrå, tlf. 21 09 00 00 eller e-post: personvernombud@ssb.no.

På førehand takk!
Vennleg helsing

Svein Longva
administrerande direktør

Ole Sandvik
seksjonssjef

43

Takkebrev

Oslo, november 2003
Saksbehandler: Elise Wedde
Seksjon for intervjundersøkelser

11 Takk for hjelpen!

Vi ønsker å takke alle som har sendt inn svar på skjemaet til undersøkelsen om belastninger, mestring og helse innenfor utsatte yrker. Til nå har vi fått inn mange svar.

Dersom du ennå ikke har rukket å fulle ut skjemaet, vil vi sette stor pris på om du tok deg tid til det i nærmeste fremtid. Det er selvfølgelig frivillig å delta, men det er svært viktig at så mange som mulig deltar. Da blir resultatene bedre og mer pålitelige.

Alle som fyller ut og returnerer skjemaet er med i trekkingen av en premie til en verdi av 10 000,- kroner og ti premier til en verdi av 1 000,- kroner.

Som vi har nevnt tidligere har alle som arbeider i Statistisk sentralbyrå taushetsplikt, og undersøkelsen er i tråd med retningslinjer gitt av Datatilsynet. Ingen opplysninger om hva enkelpersoner har svart på undersøkelsen vil noensinne bli offentliggjort.

Skulle du ha spørsmål om undersøkelsen, eller dersom du trenger et nytt spørreskjema (bokmål eller nynorsk), kan du ringe oss gratis på telefon 800 83 028, eller sende en e-post til wed@ssb.no eller sva@ssb.no.

Med vennlig hilsen,

Ole Sandvik
seksjonssjef

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Purrebrev

Oslo, november 2003
Saksbehandler: Elise Weddø
Seksjon for intervjuundersøkelser

12 Har du sendt inn spørreskjemaet?

For en tid tilbake fikk du tilsendt et spørreskjema i forbindelse med en undersøkelse om belastning, mestring og helse innenfor utsatte yrker. Da vi ikke kan se å ha mottatt noe skjema fra deg, tillater vi oss å minne om undersøkelsen. Det er frivillig å delta, men resultatet av undersøkelsen avhenger av at så mange som mulig av de som ble trukket ut deltar.

Har du allerede sendt inn skjemaet, ber vi deg se bort fra denne henvendelsen og takker for et verdifullt bidrag til undersøkelsen.

Dersom du ennå ikke har svart, vil vi være veldig takknemlige om du kunne fylle ut skjemaet og returnere det til oss i den frankerte svarkonvolutten så snart som mulig.

Alle som besvarer og returnerer spørreskjemaet er med i trekkingen av et gavekort på kr 10 000,- og ti gavekort til en verdi av kr 1 000,-.

Undersøkelsen gjennomføres etter lovpålagte regler, og SSB er underlagt kontroll både fra Datatilsynet og vårt eget personvernombud. Det vil aldri bli kjent utenfor Statistisk sentralbyrå hva enkeltpersoner har svart på undersøkelsen.

Har du spørsmål om selve undersøkelsen kan du gjerne ringe oss gratis på telefonnummer **800 83 028**, eller sende en e-post til wed@ssb.no eller svs@ssb.no. Vi viser også til informasjon i tidligere brev. Ta kontakt dersom du ønsker spørreskjema på nynorsk.

Generelle spørsmål vedrørende personvern i SSB kan rettes til SSBs personvernombud, telefonnummer 21 09 00 00 eller e-post personvernombud@ssb.no.

Vi ser fram til å motta ditt skjema!

Med vennlig hilsen

Ole Sandvik
seksjonssjef

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Oslo, november 2003
Saksbehandsamar: Elise Wedde
Seksjon for intervjuundersøkelser

NN

13 Har du sendt inn spørjeskjemaet?

For ei tid sidan fekk du tilsendt eit spørjeskjema i samband med ei undersøking om belastning, meistring og helse innanfor utsette yrker. Då vi ikkje kan sjå at vi har motteke skjema frå deg, tillet vi oss å minne om undersøkinga. Det er frivillig å delta, men resultatet av undersøkinga avhenger av at så mange som mogleg av dei som vart trekt ut deltek.

Har du allereie sendt inn skjemaet, ber vi deg om å sjå vekk frå dette brevet og takker for eit verdifullt bidrag til undersøkinga.

Dersom du ennå ikkje har svart, vil vi vere svært takksame om du kunne fylle ut skjemaet og returnere det til oss i den frankerte svarkonvolutten snarast.

Alle som svarer på og returnerer spørjeskjemaet er med i trekkinga av eit gåvekort på kr 10 000,- og ti gåvekort til ein verdi av kr 1 000,-.

Undersøkinga vert gjennomført etter lovpålagde reglar, og SSB er underlagt kontroll både frå Datatilsynet og vårt eige personvernombod. Det vil aldri verte kjent utanfor Statistisk sentralbyrå kva enkeltpersonar har svart på undersøkinga. Vi viser også til informasjon i tidlegare brev. Ta kontakt dersom du ønskjer spørjeskjema på nynorsk.

Har du spørsmål om sjølve undersøkinga kan du ringje oss gratis på telefonnummer **800 83 028**, eller sende ein e-post til wed@ssb.no eller svs@ssb.no. Vi viser også til informasjon i tidlegare brev. Ta kontakt dersom du ønskjer spørjeskjema på nynorsk.

Generelle spørsmål om personvern i SSB kan rettast til SSB sitt personvernombod, telefonnummer 21 09 00 00 eller e-post personvernombud@ssb.no.

Vi ser fram til å motta skjemaet ditt!

Med venleg helsing

Ole Sandvik
seksjonssjef

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Appendix 2

Operationalization of work engagement is presented below.

The Oldenburg Burnout Inventory

Instructions: Below you find a series of statements with which you may agree or disagree. Using the scale, please indicate the degree of your agreement by selecting the number that corresponds with each statement.

		Strongly agree	Agree	Disagree	Strongly disagree
1	I always find new and interesting aspects in my work	1	2	3	4
2	There are days when I feel tired before I arrive at work	1	2	3	4
3	It happens more and more often that I talk about my work in a negative way	1	2	3	4
4	After work, I tend to need more time than in the past in order to relax and feel better	1	2	3	4
5	I can tolerate the pressure of my work very well	1	2	3	4
6	Lately, I tend to think less at work and do my job almost mechanically	1	2	3	4
7	I find my work to be a positive challenge	1	2	3	4
8	During my work, I often feel emotionally drained	1	2	3	4
9	Over time, one can become disconnected from this type of work	1	2	3	4
10	After working, I have enough energy for my leisure activities	1	2	3	4
11	Sometimes, I feel sickened by my work tasks	1	2	3	4
12	After my work, I usually feel worn out and weary	1	2	3	4
13	This is the only type of work that I can imagine myself doing	1	2	3	4

14	Usually, I can manage the amount of my work well	1	2	3	4
15	I feel more and more engaged in my work	1	2	3	4
16	When I work, I usually feel energized	1	2	3	4

Note: Dedication items are: 1(R), 3, 6, 7(R), 9, 11, 13(R), 15(R). Vigor items are: 2, 4, 5(R), 8, 10(R) 12, 14 (R), 16(R). (R) means reversed item when the scores should be such that higher scores indicate more work engagement (Demerouti, Mostert & Bakker, 2010).

In the Norwegian version of the OBLI, item 1 was changed to: "I am less interested in my job now than in the beginning" (Innstrand, Langballe & Falkum, 2012). This item is reversed in order to measure dedication.

In the present study, the Norwegian version of the OLBI was used (see Appendix 1 for the Norwegian questionnaire). The following items measures vigor and dedication, respectively:

Vigor: 13:1 (R), 13:3 (R), 13:5 (R), 13:29 (R), 13:11, 13:16, 13:18, and 13:30

Dedication: 13:23 (R), 13:28 (R), 13:31 (R), 13:33 (R), 13:34 (R), 13:32, 13:35, and 13:37

Note: R = reversed

References

Demerouti, E., Mostert, K. & Bakker, A.B. (2010) Burnout and work engagement: A
thorough investigation of the independency of both constructs. Journal of
Occupational Health Psychology, 15(3), 209-222.

Innstrand, S. T., Langballe, E. M., & Falkum, E. (2012). A longitudinal study of the
relationship between work engagement and symptoms of anxiety and depression.
Stress and Health, 28(1), 1-10.

Appendix 3

The sections of the present study's questionnaire regarding coping strategies and personality traits are translated to English and presented below, followed by the items that represent each scale (see Appendix 1 for the Norwegian questionnaire).

Coping strategies

25. Several statements that describe how to cope in situations when you really experience stress or strain are listed below. To what extent are each of these statements correct for you?

		Incorrect				Correct
1	I try to enter into some kind of deal or an agreement to get something positive out of the situation	1	2	3	4	5
2	I blame myself	1	2	3	4	5
3	I hope for a miracle	1	2	3	4	5
4	I try to see the positive in the situation; it is never so bad that it is not good for anything	1	2	3	4	5
5	I wish I was stronger, more optimistic and had more energy	1	2	3	4	5
6	I try not to burn all bridges, but rather allow more opportunities to be left open	1	2	3	4	5
7	I try to keep my feelings to myself	1	2	3	4	5
8	I change or grow as a human being in a good way	1	2	3	4	5
9	I wish I could change the way I feel	1	2	3	4	5
10	I make a plan of action and follow it	1	2	3	4	5

11	I get help from professionals	1	2	3	4	5
12	I criticize or tell myself what I should have done	1	2	3	4	5
13	I accept the next best thing compared to what I really wished for	1	2	3	4	5
14	I daydream or think of better times or a better place than here and now	1	2	3	4	5
15	I think I will get stronger and better armed out of the event than I went into it	1	2	3	4	5
16	I sleep more than usual	1	2	3	4	5
17	I have fantasies or wishes about how it will turn out in the end	1	2	3	4	5
18	I try to avoid acting rashly or follow my first impulse	1	2	3	4	5
19	I talk to somebody that can do something with the problem	1	2	3	4	5
20	I make a change, so it will be fine in the end	1	2	3	4	5
21	I ask a relative or friend I respect for advice	1	2	3	4	5
22	I try to feel better by eating, drinking, smoking, taking medications etc.	1	2	3	4	5
23	I realize that I have caused problems	1	2	3	4	5
24	I avoid being together with other people	1	2	3	4	5
25	I accept my feelings but try to avoid that they affect other things	1	2	3	4	5
26	I wish that the situation would disappear or somehow go away by itself	1	2	3	4	5
27	I don't tell anyone how bad it is	1	2	3	4	5

28	I change something with myself so that I can tackle the situation better	1	2	3	4	5
29	I talk to someone about how I am	1	2	3	4	5
30	I refuse to believe it has happened	1	2	3	4	5

Operationalization of coping are in this study based on Falkum, Olff and Aasland's (1997) factor structure of Ways of Coping Checklist. The following items measures seek support, accommodation, self-blame and defense, respectively:

Seek support: 25:7 (R), 25:19, 25:21, 25:24 (R), 25:27 (R), 25:29

Accommodation: 25:1, 25:4, 25:6, 25:8, 25:13, 25:15, 25:25, 25:28

Self-blame: 25:2, 25:5, 25:9, 25:12, 25:23

Defense: 25:3, 25:14, 25:16, 25:17, 25:22, 25:26, 25:30

Note: R = reversed

Personality traits

22. Below are some statements about personal characteristics and preferences. For each of the statements, please indicate whether these statements are true or false for you.

		False	True
1	I am very concerned about what other people think of me	0	1
2	Fortunately, I do not have a lack of confidence	0	1
3	I often feel that others do everything much better than me	0	1
4	I tolerate criticism very badly	0	1

5	I easily get discouraged when things go wrong.	0	1
6	If suddenly unexpected things happen, I can easily get confused	0	1
7	My mood changes easily depending on what's happening around me	0	1
8	My lack of self-esteem can sometimes be a nuisance to me	0	1
9	People can yell quite sharply at me before it affects me	0	1
10	I could probably achieve more than I do, I do not see the point of pushing me harder than necessary	0	1
11	I'm usually so deliberate that I keep working long after others have given up	0	1
12	I work harder than most people	0	1
13	Generally, I'm working harder than most because I want to do it as well as possible	0	1
14	I often drive myself until I drop, or trying to do more than I really can manage	0	1

Operationalization of personality traits are in this study based on the Temperament and Character Inventory (Cloninger et al., 1994). The following items measures persistence and lack of self-esteem, respectively:

Persistence: 22:11, 22:12, 22:13, 22:14

Lack of self-esteem: 22:1, 22:2 (R), 22:3, 22:4, 22:5, 22:6, 22:7, 22:8, 22:9 (R)

Note: R = reversed

References

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