Department of Industrial Engineering and Management

Job demands and resources of nurses working in assisted living facilities

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Aalto-universitetet
Aalto University

Master’s Thesis
2022

Aalto-yliopisto
Aalto-universitetet
Aalto University

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Title of thesis Job demands and resources of nurses working in assisted living facilities.

Programme Master's Programme in Industrial Engineering and Management

Major Organisation Design and Leadership

Thesis supervisor Professor Niina Nurmi

Thesis advisor Professor Niina Nurmi

Collaborative partner Validia Oy

Date 27.12.2022 **Number of pages** 83 + 6 **Language** English

Abstract

Nursing is a profession that has been the focus of organisational studies for a long time. Still, the topic remains relevant, especially when healthcare costs are rising and due to a chronic labour shortage. Furthermore, production is difficult to automate as people expect high-quality care conducted by humans. That is why it is even more important for organisations to take care of their valuable labour assets.

This research studied the job demands and resources of nurses working in assisted living facilities to understand how and why they lead to burnout or work engagement. Furthermore, it was conducted as a qualitative case study in two living facilities. The data was collected by interviewing the nurses and by observing them during a workshop session, one in each care unit. Moreover, the data was analysed with the help of inductive grounded theory methods.

The findings showed that the nurses do their work based on values. For them, it is crucial to be able to give high-quality care. Contrary, they feel stress when the work becomes mechanical performing. This also explains previous gaps in literature that has tried to explain how nurses feel meaningfulness in their work. Findings showed that the resources that best promote work engagement is uninterrupted time with clients and a strong work community where everyone supports each other. On the other hand, one of the most significant job demands is the demand for shift work and work-life balance. Here, managerial skills of good, flexible and fair work scheduling are the resources that best buffer the risk of burnout.

Keywords Job demands and resources (JD-R), nursing, assisted living facility, work reflection workshop

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Työn nimi Hoitajatyön vaatimukset ja resurssit tuetussa palveluasumisessa.

Koulutusohjelma Tuotantotalous

Pääaine Organisaatiorakenteet ja johtaminen

Vastuuopettaja Professori Niina Nurmi

Työn ohjaaja(t) Professori Niina Nurmi

Yhteistyötaho Validia Oy

Päivämäärä 27.12.2022 **Sivumäärä** 83 + 6 **Kieli** Englanti

Tiivistelmä

Hoitotyö on jo pitkään ollut organisaatiotutkimuksen kohteena ja aihe on ehkä keskeisempi kuin koskaan kasvavan kulurakenteen ja kroonisen työvoimapulan takia. Tuotantoa on myös vaikea tehostaa automaation avulla niin kauan kuin ihmisten odotusarvo on, että työ on hyvälaatuista ja ihmisläheistä. Näistä asioista johtuen on tärkeää, että organisaatiot pitävät huolta omista työntekijöistään.

Tämä tutkimus on pyrkinyt selvittämään millä tavalla hoitotyön vaatimukset ja resurssit tuetussa palveluasumisessa vaikuttavat hoitajien työuupumukseen ja toisaalta työn imuun. Tutkimus suoritettiin kvalitatiivisena tapaustutkimuksena, jossa tutkimuskohteena oli kaksi tuetun palveluasumisen hoitoyksikköä fyysisesti vammautuneille henkilöille. Pääasiallisina tiedonkeruumenetelminä toimivat haastattelut hoitajien kanssa sekä työpajojen aikana kirjatut havainnot. Tiedon analysoinnissa hyödynnettiin ankkuroidun teorian menetelmiä.

Tutkimus osoitti, että hoitajat tekevät työtään arvojensa kautta. Heille on tärkeää saada suorittaa kiireetöntä hoitoa, joka huomioi asiakkaan yksilönä. Toisaalta hoitajat kokevat stressaavaksi tilanteet, jossa työ muuttuu mekaaniseksi suorittamiseksi. Tärkeimmät resurssit, jotka synnyttävät työn imua ovat kiireetön hoitoaika asiakkaiden kanssa sekä työyhteisön avoin ja kannustava ilmapiiri. Työyhteisö on myös tärkeä resurssi työkuorman tasaamiseksi poikkeustilanteissa. Vaatimuksiin liittyen hoitajat kokevat, että vuorotyö sekä työn ja vapaa-ajan yhteensovittaminen ovat isoimmat vaatimukset. Tärkein resurssi niiden puskuroimiseen ovat tämän tutkimuksen mukaan laadukas esimiestyö sekä hyvä, tasapuolinen ja molemmin puolin joustava työvuorosuunnittelu

Avainsanat Työn vaatimukset ja resurssit, hoitotyö, tuettu palveluasuminen

Aalto-yliopisto
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Titel Job krav och resurser av vårdarbetet i serviceboende för fysiskt handikappade.

Utbildningsprogram Produktionsekonomi

Huvudämne Organisationsstrukturer och ledarskap

Handledare Professor Niina Nurmi

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Datum 27.12.2022 **Sidantal** 83 + 6 **Språk** Engelska

Sammandrag

Vårdbranschen har redan en lång tid varit ett återkommande ämne inom organisationsstudier. Idag är ämnet mer aktuellt än kanske någonsin tidigare i och med ökade sjukvårdskostnader och brist på kompetent personal. Således är det viktigt för organisationerna att ta väl hand om sin personal.

Denna studie har försökt sig på krav och resurser som sköterskorna möter i sitt arbete på faciliteter för serviceboende för fysiskt handikappade personer och huruvida de leder till utbrändhet respektive arbetsengagemang. Studien utfördes som en kvalitativ fallstudie i två vårdenheter. De primära källorna var intervjuer med sköterskorna samt antecknade observationer två workshops, en i respektive vårdenhet. Analys av materialet följde metoder baserade på grundad teori.

Studien påvisade att sköterskorna gör sitt arbete med sina värderingar som utgångspunkt. De tror att varje människa är värd vård av hög kvalitet och att detta uppfylls då sköterskorna har tid att möta kunderna som individer. Däremot upplever sköterskorna stress då vårdarbetet blir en mekanisk prestation på grund av stram tidtabell och personalbrist. Undersökningen visade att arbetsenhetens samhörighet hör till de viktigaste resurserna då det gäller att dämpa de negativa effekterna. Studien kunde också konkludera att krav som har att göra med skiftesarbete och obalans mellan arbete och fritid kan leda till utbrändhet.

Nyckelord Jobkrav och -resurser, vårdarbete, sjukvård, serviceboende

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Preface

Most things are achievable through persistent work. I feel overwhelmed but also grateful to all who have helped and supported me on the journey. As the journey is coming to an end, I want to thank everyone that has been involved. I wish especially to thank my wife Katarina for her support and for taking care of the kids to make this possible. She believed in me also during those moments when I doubted myself. We have sometimes joked that this has been the whole family's thesis.

I also want to thank my supervisor Niina Nurmi for her academic guidance and for making me focus on the essential questions and information in the universe of knowledge. I also want to thank Aalto University and the whole Aalto community for this opportunity. It has been an honour to have the possibility to learn from teachers and fellow students, whom I consider smarter than myself. I am thankful for the personal growth you have provided me and confident that your role will be central in moulding future business and society.

Furthermore, I want to express my gratitude to Validia for making this research possible and to their chief HR officer Sari Souranmaa for the trust that she has shown. Also, a big thanks to Pekka Tölli and Terhi Aho for helping me to get in contact with Sari, which is another proof how networks can lead you on unexpected paths.

Finally, my thoughts go out to the people of Ukraine who are struggling for their freedom and independence, even at this moment. Thinking about it puts life in perspective, that some things matter more than others and that there are real issues out in the world.

Espoo, 27th of December 2022

Ted Rönnberg

1 Introduction

Nursing is a profession that has been studied for decades. However, despite the development of technology, clients, patients, and society still expect care that has a human touch. This requirement is especially important in settings where the patient or client is entirely dependent on the care. These types of requirements result in labour-intensive care. At the same time, a labour shortage has developed over time, which cannot be solved with technology alone. Hence, organisational studies are required to ensure the well-being and performance of the scares labour resource.

This research looks at the work motivation of nurses working in assisted living facilities with physically disabled clients. It uses the *Job Demands and Resources* (JD-R) model (Bakker & Demerouti, 2017) to identify job demands that increase the risk of *burnout* and job resources that buffer these demands or increase *work engagement*. Thus, trying to help the focal healthcare organisation to match job resources with current job demands. Further, the research evaluates the findings against previous studies in the field of nursing to draw more general conclusions. The study is a qualitative case study by its scientific nature.

This chapter provides an overview of the thesis by presenting the background, the purpose of the study and the research. It then outlines the scope of the study and ends with the disposition.

1.1 Background

One can argue that a high quality of care is something everybody expects and deserves. On the other hand, nursing is labour intensive, emotionally requiring profession, which is difficult to automate. That is why the quality of care originates from competent and engaged nurses working in an environment with

enough resources. Furthermore, research suggests that motivated and satisfied nurses have greater readiness to collaborate and care for patients. Conversely, low work motivation has decreased the quality of care and increased intentions to leave work. (Toode et al., 2011; Yildiz et al., 2009; Suominen et al., 2001) Therefore, it is at the core of healthcare providers to support their personnel to exercise their profession without significant obstacles. A promising framework used in recent years for studying nursing is the Job Demands and Resources (JD-R) model (Bakker & Demerouti, 2017).

Despite this focus in organisational studies, assisted living facilities have received little attention and are, therefore, worth to be studied. This study hopes to shed light on what affects the work motivation and job satisfaction of nurses in assisted living facilities so that service providers can support and increase work engagement and decrease nurses' burnout. Thus, improving productivity, not at the cost of quality, but through increased well-being of the personnel.

1.2 Purpose of the study and research questions

This study aims to understand and evaluate which factors affect work engagement and burnout of nurses in assisted living facilities to help service providers improve the quality of care and decrease turnover intentions of the nurses. This is done by letting the nurses portray the work as they interpret it so that an understanding emerges bottom-up. This is done by identifying critical job-related demands and resources through a qualitative case study. For this reason, the research has used methods similar to those used when constructing grounded theory (Charmaz, 2006). The primary data collection methods have been personal one-on-one interviews with the nurses and participant

observation. The participant observations have been conducted in a workshop setting inspired by Scania Innovation Factory[1].

Furthermore, the Job Demands-Resources (JD-R) model (Bakker & Demerouti, 2017) has been used to understand the findings and draw conclusions. A reason for this is previous results that the model has been able to generate in nursing and its ability to explain multiple findings in an integrative manner.

However, as in qualitative studies, the basic methodological principle has been to let the research question guide the analysis itself. The research question is:

Which job demands and resources affect the nurses' work engagement and burnout in assisted living facilities?

1.3 Scope of the study

This study is conducted in two assisted living facilities that are part of the same healthcare organisation. Both units are located in southern Finland, one in the Helsinki region and the other outside. This is also reflected in the cultural background of the workers, where the nurses working in the facility in the capital region have a more heterogeneous cultural background. In contrast, those working in the unit outside have a more homogenous background. Nonetheless, this study will not consider the cultural background but is aware that it might affect the study's outcomes. Likewise, one has to be aware of the

[1] Scania is a Swedish commercial, automotive manufacturer operating in the heavy transport industry. Scania Innovation Factory's task is to foster creative and entrepreneurial thinking among employees to generate new business ideas and innovative solutions. Scania Innovation Factory's task is to make Scania a more attractive employer. More information about Scania Innovation Factory is available at: [https://www.scania.com/group/en/home/about-scania/innovation/entrepreneurship/scania-innovation-factory.html]

labour market regulations affecting work arrangements, even if it is not the concern of the study.

The focal group of the study is nurses working with clients living in the facilities. The nature of work has some elements from hospitals and some from homecare settings. The care given is similar to homecare, except that the nurses are available around the clock, and the care is more comprehensive as the clients are physically disabled. The nurses also focus more on the care itself, as there are separate workers that take care of housekeeping if the clients need these types of services.

This research does not look at the care organisation but tries to understand the nature of the work of the nurses in the living facilities. More generally, the research tries to understand what the nurses value in their work and which resources are crucial to coping with the demands.

1.4 Structure of the thesis

In chapter two, the thesis discusses work motivation, burnout and work engagement. Finally, it presents the theoretical framework (JD-R model) and previous nursing studies where it has been used.

The third chapter presents the method, including the research setting and data collection and analysis methods. Finally, it gives a more detailed elaboration on workshops as a method for doing participant observations.

The research will continue by presenting the findings in chapter four and end with the discussion chapter. The discussion chapter consists of an elaboration of theoretical contributions and managerial implications. Finally, it ends with presenting limitations and suggestions for future research.

2 Theoretical background

The first step to understanding the work-related behaviour of nurses was taken by Meir (1972). He studied the effect of psychological needs on persistence, while McCloskey (1974) studied the impact of rewards and incentives on nurses' turnover rates. Since those times, organisational understanding of nursing has increased. A contemporary *work design* model that has found popularity among European scholars is the Job Demands-Resources (JD-R) model (Bakker & Demerouti, 2017). De Jonge and his colleagues (2013) say that the popularity originates from the model's ability to explain motivational outcomes irrespective of cultural background, profession or job occupation.

Contrary to earlier content or process models, the JD-R model sees work motivation as an outcome of the balance between job resources and job demands and not as the spark that generates all activity (Schaufeli & Taris, 2014; Rainey, 2000). Compared to grand theories, the JD-R model offers a suitable mid-range theory for investigating practical settings. The model has also proved its usability in nursing in previous research (see Table 1). Previous studies have shown that work motivation is not only an outcome of intrinsic and extrinsic factors - it also depends on emotional and social factors (Schaufeli & Taris, 2014). A summary of some of the most relevant findings is presented in the table belove.

Table 1: Relevant findings of previous JD-R studies in nursing.

Author	Research setting	Findings
Bakker et al. (2003)	Homecare nurses (The Netherlands, n=3092)	Exhaustion is caused by job demands of which patient demands and physical demands are most significant.

Bakker and Heuven (2006)	Hospital nurses (the Netherlands, n=108)	Emotional dissonance leads to exhaustion and decreased in-role performance.
Xanthopoulou et al. (2007b)	Homecare nurses (The Nertherlands, n=747)	Lack of job resources causes cynicism, while job demands cause exhaustion. Emotional demands and patient harassment cause both cynicism and exhaustion. Autonomy and opportunities for professional development are the best resources to buffer these demands.
de Jonge et al. (2008)	Healthcare workers (The Netherlands, n=826)	Support from peers and managers decreases emotional exhaustion, increase work motivation and creativity. Control of work (autonomy) decreases emotional exhaustion and increases creativity.
Jourdain and Chênevert (2010)	Licensed nurses (Canada, n=1636)	Work interference with family leads to exhaustion. Meaning of work and sense of impact buffers exhaustion and cynicism (depersonalisation).
Garrosa et al. (2011)	Hospital nurses (Spain, n=508)	Permanent occupation and shift work predicts emotional exhaustion. Hardy personality buffers job demands that cause burnout. Optimism buffers emotional exhaustion and lack of accomplishment. It also increases work engagement. Lack on emotional competence increases risk of burnout.

Bakker & Sanz-Vergel (2013)	Homecare nurses	Emotional demands can promote work engagement. Work pressure leads to exhaustion.

This chapter continues by introducing important concepts of work motivation, work engagement and burnout that are essential for understanding the JD-R model. It then discusses the model itself before proceeding to earlier research. The chapter ends with a brief discussion of how the model could be improved in the future.

2.1 Work motivation

> "The most difficult thing [as a CEO] is to understand their [subordinates] motivational field in all situations" – Finnish CEO in Kulla (2011)

Work motivation has been a central topic for scholars since the mid-1960s (e.g., Maslow, 1954; Hertzberg et al., 1959; Vroom, 1964) and remains relevant. For example, Latham and Budworth (2007) argue that it is still the most dominant concept in industrial and organisational psychology. Generally, it is seen as an umbrella for many observed psychological states, such as work engagement, job satisfaction, job involvement and organisational commitment (Schaufeli & Bakker, 2010).

Initially, motivational research looked at work motivation through need fulfilment and the processes that generated a specific type of behaviour. Contemporary studies, again, are more interested in cognitive processes than physical and psychological needs. (Rainey, 2000) The development has led to attitudinal processes becoming the focus of contemporary studies where factors such

as values, work culture, job design characteristics and person-context fit are studied (Latham & Pinder, 2005). In 2011, Toode and her colleagues found in a literature review that in nursing, working conditions, workplace characteristics, individual priorities, personal characteristics, and the nurse's inner psychological state affect work motivation. In another scoping review, Baljoon and her colleagues (2018) suggest that personal characteristics that explain motivational outcomes in nursing are autonomy, age, experience, educational level and administrative position. At the same time, they found that organisational factors such as empowerment, supervision, salary, financial benefits, contingent rewards, co-worker support, communication and the nature of work can increase employee motivation (Baljoon et al., 2018).

Even if work motivation has been studied for a long time, it is still defined in a different ways in academic literature (Spector, 2000). From the perspective of academic research, Toode et al. (2011) argue that the outcome depends on the theoretical framework and methods used. Furthermore, they argue that the definition used is essential for understanding intangible concepts like motivation. In the JD-R model, motivation is understood as an outcome similar to Moody and Pesut's (2006, p. 17) definition:

> Motivation is a values-based, psycho-biologically stimulus-driven inner urge that activates and guides human behaviour in response to self, other, and environment, supporting intrinsic satisfaction and leading to the intentional fulfilment of basic human drives, perceived needs, and desired goals.

And it is most often measured with the help of work engagement or cynicism (the motivational component of burnout) (Bakker & Demerouti, 2017; Schaufeli & Taris, 2014).

According to Locke (1978), the organisational outcome depends on how well the organisation can 1) foster and 2) utilise work motivation of its employees. The JD-R model is valuable for answering questions about how to produce and promote work motivation. Instead of looking at motivation as a resource, the JD-R model sees motivation as an outcome and is interested in factors and relations that produce positive or negative motivational outcomes. The model helps practitioners to produce positive motivational outcomes and scholars to understand the nature of work motivation. (Bakker & Demerouti, 2007; Bakker & Demerouti, 2017; Schaufeli & Taris, 2014).

2.1.1 Burnout

Burnout is an important motivational concept of the JD-R model that is used to in this study. In fact, burnout caused by job demands is the most studied JD-R concept in nursing, and it is the first outcome predicted by the original JD-R model (Demerouti et al., 2001).

In one of the most used definitions, Maslach and Jackson (1981, p. 99) say that:

> Burnout is a syndrome of emotional exhaustion and cynicism that occurs frequently among individuals who do ‘people-work’ of some kind.

Burnout was initially considered a health-impairment syndrome related to human service professions (Maslach & Jackson, 1981). The notion was that exhaustion would arise from environmental demands evoking negative feelings. Furthermore, the belief was that to cope with the exhaustion. Therefore, employees would protect themselves mentally by distancing themselves from

work, which could be seen as depersonalisation, cynicism and negative attitudes towards accomplishment and competence. (Leiter & Maslach, 1988)

In their first JD-R study, Demerouti, Bakker, Nachreiner and Schaufeli (2001) tied to understanding burnout as an outcome of the imbalance between job demands and resources. Since then, studies have shown that the risk factors that lead to burnout vary between occupations (Bakker et al., 2003a). The current model says that burnout occurs in work environments with high job demands and limited job resources. The notion is that an imbalance between job demands, and job resources leads to the depletion of energy while at the same time undermining work motivation and learning opportunities (Bakker et al., 2003a). These findings have resulted in burnout being divided into the energetic component of *exhaustion* and the motivational component of *cynicism* or *disengagement*[2] (e.g., Schaufeli & Taris, 2014).

In nursing, scholars have identified a strong correlation between exhaustion and high job demands, while cynicism is linked to the lack of sufficient resources (e.g., Bakker et al., 2003b; Bakker & Sanz-Vergel, 2013; Garrosa et al., 2011). Additionally, some studies (e.g., Bakker et al., 2003b) have also used *professional efficacy* as a potential outcome to explain why employees suddenly fail to fulfil their work responsibilities and are no longer effective in working with recipients. However, scholars still debate professional efficacy because of the lack of longitudinal studies (Bakker & Heuven, 2006).

In the past, burnout has been studied successfully in JD-R research with Maslach Burnout Inventory-General Survey (MBI-GS) (see Schaufeli et al., 1996) and Oldenburg Burnout Inventory (OLBI) (Demerouti et al., 2003),

[2] Cynicism is referred to as disengagement in the Oldenburg Burnout Inventory, sometimes referred to as depersonalisation (see e.g., Bakker & Heuven, 2006).

with MBI being used more often in nursing studies. The main difference between the models is that the OLBI extends the concept of depersonalisation beyond emotional engagement to include work objects and content. The OLBI also has the benefit that it can be used to study work engagement as it covers both positive and negative outcomes and affective, cognitive, and physical dimensions of work (Demerouti & Bakker, 2008). These models will not be used in this research, as they are meant for quantitative studies, but they are still relevant for understanding previous findings.

2.1.2 Work engagement

Work engagement is another behavioural outcome relevant to this study. According to Schaufeli and Bakker (2010, p. 1), *work engagement* is:

> A positive, fulfilling, affective-motivational state of work-related well-being that can be seen as the antipode of burnout.

The concept was first introduced by Kahn (1990) and has since been one of the fastest-emerging concepts in organisational psychology (Schaufeli & Salanova, 2007). It was introduced as a counterweight to previous research traditions that looked at the flaws of humans as workers but has since proven to be a reliable predictor of positive organisational outcomes (Hakanen, 2018). It is not meant as an all-inclusive umbrella covering all aspects of work but as "a specific, well-defined and properly operationalized psychological state" that can be measured (Schaufeli & Bakker, 2010, p. 2). It has proven to have a strong correlation to job performance, which is why it has gained popularity for in JD-R research (Demerouti & Cropazano, 2010; Schaufeli & Taris, 2014).

Schaufeli and Bakker (2004) first incorporated work engagement in the JD-R model. Since then, scholars have found that work engagement positively correlates with job resources such as support from managers and colleagues followed by autonomy, skill variety, performance feedback, and learning opportunities (Bakker & Demerouti, 2017; Schaufeli & Taris, 2014). The benefit of studying work engagement is that compared to other motivational outcomes, work engagement is a three-dimensional psychological concept that includes the physical, cognitive and emotional dimensions of work (Bakker & Demerouti, 2008). Therefore, it is not only a state of satisfaction or happiness but a state that also produces productive outcomes for the organisation (Schaufeli & Bakker, 2010). Consequently, Bakker and Demerouti (2008) say that the outcomes can be *vigour*, *dedication* and *absorption.* The scholars say that:

> *Vigor* is characterized by high levels of energy and mental resilience while working. *Dedication* refers to being strongly involved in one's work and experiencing a sense of significance, enthusiasm, and challenge. *Absorption* is characterized by being fully concentrated and happily engrossed in one's work, whereby time passes quickly and one has difficulties with detaching oneself from work". (Bakker & Demerouti, 2008, p. 209 – 210)

Further, Bakker (2011) has concluded that engaged employees are full of energy, experience significance, enthusiasm and challenge in their work. Diener et al. (2010) again say that engaged workers can develop warm and strong relationships with their colleagues. This does not mean that engaged workers would not feel tired. Instead, engaged workers have explained that they feel accomplishment and satisfaction despite work-related tiredness (Xanthopoulou et al., 2007b).

Research has also shown that employees who feel engaged turn engagement into action. For example, in nursing, work engagement has contributed to the quality of care through the increased focus on *in-role performance*[3]. As a result, customer satisfaction is also higher. The premise is that engagement generates positive emotions and more compassion for the patients. (Xanthopoulou et al., 2009; Suominen et al., 2011).

Furthermore, work engagement also supports *extra-role performance*[4]. In addition to one's core responsibilities, employees have personal expectations and ambitions beyond their formal position or work occupation. As a result, engaged workers can see beyond their work descriptions and participate in job crafting so that their work answers the requirements of an ever-changing work environment. (Leiter & Bakker, 2010)

2.2 The Job Demands-Resources model

In their multi-dimensional study, Lu and her colleagues (2005) have proposed that integrative models should be used more often when studying work motivation. They say that the model should incorporate organisational, professional and personal factors, which is what the JD-R model does (Schaufeli & Taris, 2014). The model combines traditions of burnout and job stress (Leiter, 1993; Selye, 1976) with previous studies on work motivation (Bakker & Demerouti, 2017). The benefit is that it "can be used for organisations to improve employee health and motivation, whilst simultaneously improving various organisational outcomes" (Demerouti & Bakker, 2011, p. 1).

The premise of the current model (Figure 1, page 26) is that the *characteristics* of any job, regardless of profession or occupation, can be explained with

[3] In-role performance is the behaviours and outcomes that directly serve organisational objectives.
[4] Extra-role performance is behaviours that are not directly linked to the formal job requirements, but have and effect on organisational outcomes through social processes.

the help of job demands and job resources and that they result in increased work engagement through motivational processes or burnout through health-impairment. Furthermore, the model assumes that outcomes depend on how well the resources and demands are balanced or imbalanced. (Bakker & Demerouti, 2014)

On the other hand, in between the characteristics and outcomes, there can be factors that increase or decrease the likelihood of the anticipated outcome. These factors are called to have a *moderating effect*. For example, de Jonge and Dormann (2006) argue that organisations should try to find factors that have a moderating effect on the outcome instead of only looking at job demands and resources.

Nevertheless, the notion is that the risk of burnout is high if job demands are high, and resources are low (see Figure 1). Furthermore, job demands are often job-specific but have a cumulative effect. (Bakker & Demerouti, 2017) For instance, Van Woerkom and her colleagues (2016) studied approximately 2250 Dutch doctors, nurses and therapists who work with psychiatric patients. Van Woerkom and her colleagues found that sick absences were more likely if emotional demands were combined with a high workload. Contrary, in some cases, job demands can also promote work motivation if overcoming them (with the help of job resources) leads to professional or personal growth (Bakker & Demerouti, 2007; Hakanen et al., 2005). However, this is more of an exception, as the correlation has only been confirmed in high-performing job occupations (Xanthopoulou et al., 2009).

Moreover, *job* and *personal resources* are those resources that have a dual process on motivation and health impairment (see Figure 1) (Hakanen & Roodt, 2010). The notion is that these resources increase work engagement

(through positive experiences and emotions) and buffer burnout caused by job demands. (Leiter & Bakker, 2010; Sweetman & Luthans, 2010; Hakanen & Roodt, 2010) However, studies indicate that job resources are more crucial for buffering job demands and that the buffering effect of personal resources is limited. Personal resources have shown more promising results in promoting work engagement. Luthans et al. (2010) say that personal resources enhance positive emotions that promote vigour, dedication and absorption. *Psychological capital* (PsyCap) has been suggested as one personal resource that can increase work engagement (Sweetman & Luthans, 2010). Previous studies show that developing personal traits, such as curiosity, courage, kindness, gratitude (Park et al., 2004), efficacy, optimism, hope, and resiliency (Sweetman & Luthans, 2010) support and create personal resources. However, it still needs to be determined how a specific personal resource can be developed and what kind of PsyCap training is required. (Bakker et al., 2013; Park et al., 2004). Personal resources are also challenging for quantitative studies as the results tend to reflect an average of extreme values, instead of an overall trend (Bakker & Demerouti, 2014). Furthermore, research suggests that the effect on work engagement depends on the profession (e.g., Xanthopolou et al., 2009). Due to the small number of studies about personal resources, further research still has to be conducted to understand all the mechanisms.

Finally, current theory suggests that the outcomes can be modified by 1) redesigning work (Hackman & Oldham, 1980), 2) reducing job demands, 3) increasing job resources, or 4) by job crafting. (Bakker & Demerouti 2017; Bakker & Demerouti, 2014; De Jonge et al., 2013)

Figure 1 is found on the next page.

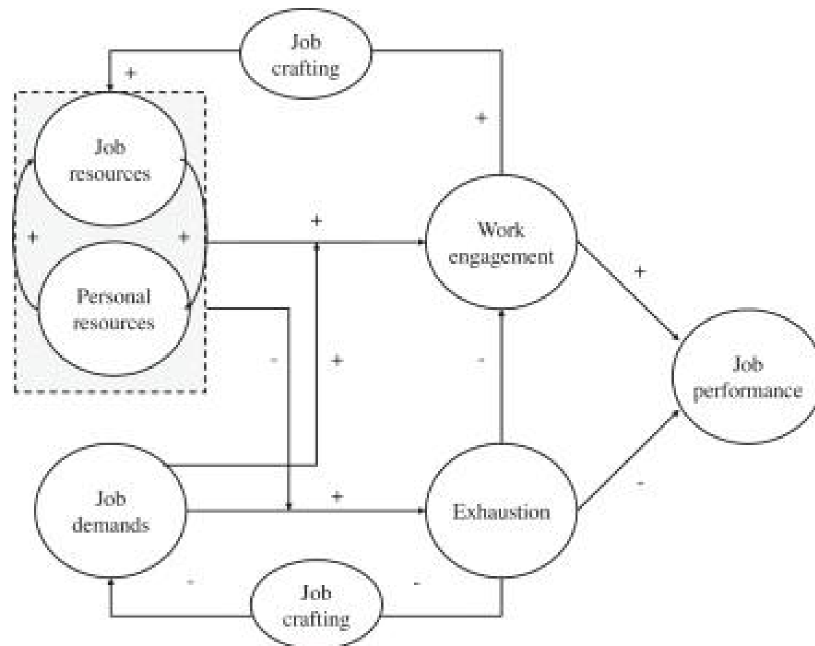

Figure 1: The JD-R model used as theoretical reference in this study. (Bakker & Demerouti, 2014)

To understand the model, it is essential to look at where it comes from and how it has developed. The original model was presented by Demerouti and her colleagues (2001). In their study, Demerouti et al. (2001) tried to understand elements of burnout by drawing on Lee and Ashforth's (1996) meta-analysis a few years earlier. In their seminal paper, Demerouti and her colleagues (2001) found 21 potential causes for burnout by looking at job demand and job resources. Furthermore, they drew to the Oldenburg Burnout Inventory (OLBI) to distinguish between exhaustion and disengagement (De Jonge et al., 2013). The difference is well illustrated by Bakker and his colleagues (2003a) when they showed that the duration of absence is linked to exhaustion. In contrast, the frequency of absence is linked to cynicism (Schaufeli & Taris, 2014). By combining the results with Maslach's structural model of burnout

(Maslach et al., 1997), Bakker and Demerouti could create a predictive model (De Jonge et al., 2013). The initial model assumed that high demands or low resources would lead to health impairment and, eventually, burnout. An assumption that has been confirmed over again. However, unlike earlier models, like the Job Demands-Control model, the JD-R model states that any demand or resource can lead to burnout (De Jonge et al., 2013).

Later, Schaufeli and Taris (2004) revised the initial JD-R model by including work engagement as a possible outcome. They discovered that job resources also lead to positive outcomes through the motivational process. Other motivational studies also support this idea. For example, Franco and her colleagues (2002, p. 1255) say that "motivation is the result of the interactions between individuals and their work environment, and the fit between these interactions and the broader societal context". Later, scholars discovered that in some professions, job demands also have a positive motivational effect if they lead to professional growth (see, e.g., Hakanen et al., 2005; Xanthopoulou et al., 2009).

Furthermore, the current model suggests that job resources have a buffering effect on job demands. This idea is an extension of Krasek's (1979) findings that control over one's work may offset the harmful effects of job demands. Likewise, Johnson and Hall (1988) have proposed that social support can have a buffering effect. The JD-R model proposes that job demands and job resources vary depending on the occupational context (Xanthopoulou et al., 2007a). Furthermore, studies have also shown (e.g., Bakker et al., 2003b) that the motivational effect of a resource could vary between operational units that perform the same tasks.

Furthermore, de Jonge and Dormann (2006) say that for a resource to have a buffering effect, it should match specific demand. De Jonge and Dormann (2006) have called this the *matching hypothesis*. For instance, in a longitudinal study with two healthcare organisations, de Jonge and Dormann (2006) showed that physical resources best buffer strain caused by physical demands and that emotional resources buffer strain caused by emotional demands. De Jonge and his colleagues (2013) illustrate this by saying that for a nurse facing the physical demands of heavy lifting, lifting equipment will buffer the demands better than a shoulder to cry on.

These findings have led to the idea that job resources help deal with particular demands but not any. That is why it is crucial to understand the underlying mechanisms. One method suggested to serve this purpose is *job crafting* or *job redesign* (De Jonge et al., 2013; Bakker & Demerouti, 2014). The idea is that with the help of job crafting, one can idea job-specific obstacles and do bespoke interventions. This idea has been supported by, for example, Tims and Bakker (2010) and Bakker et al. (2013).

Another suggested approach is to reduce job demands. One such intervention suggested is new ways of working (NWW), such as remote work (Bakker et al., 2016). However, the problem with reducing demands is that it sometimes can be difficult without interfering with the goals that should be accomplished. Another thing is that more evidence is still required on how reduced job demands affect outcomes. Furthermore, Xanthopoulou et al. (2007b) argue that reducing or redesigning work in homecare organisations is challenging. That is why it is recommended to first mitigate job demands with the right resources before considering reducing them. (Bakker & Demerouti, 2017, de Jonge et al., 2013) Contrary, increased job demands can also foster work engagement in some professions. For example, Hakanen and his colleagues (2005) have

concluded that the variability in professional skills among dentists increased work engagement in situations where the qualitative workload was high. However, this relationship has only proven practical relevance in high-performing job occupations (Xanthopoulou et al., 2009).

The latest element that has been added to the model is *personal resources*. The notion is that personal and job resources have a dyadic effect resulting so that they together buffer the effect on negative outcomes caused by job demands and increase work engagement (see Figure 1) (Bakker & Demerouti, 2014).

According to Luthans et al. (2007), personal resources that increase work engagement are self-efficacy, optimism, hope, goal orientation and resilience. Garrosa and her colleagues (2011) argue that in nursing, optimism, hardy personality, and emotional competence decrease the risk of burnout. Additionally, Xanthopoulou et al. (2013) have shown that self-efficacy strengthens work engagement for persons working in service occupations when emotional dissonance and demands are high. However, they also say that the effect of personal resources on burnout is limited compared to job resources.

On the contrary, Halbesleben and Buckley (2004) found only low correlation that professional efficacy would decrease likeliness of burnout. This leads to the conclusion that the effect of personal resources depends on the profession and occupation and that the topic requires further research. (Bakker & Demerouti, 2017; Schaufeli, 2017; Luthans et al., 2010)

2.2.1 Job demands in nursing

Schaufeli and Bakker (2004, p. 296) have defined *job demands* as:

> Those physical, social, or organizational aspects of the job that require sustained physical or psychological (i.e., mental, and emotional) effort and are therefore associated with certain physiological and psychological costs.

Previous studies have found different demands that nurses face in their occupations. An overall pattern is that job demands primarily leads to exhaustion, while the lack of resources leads to cynicism. (See, e.g., Bakker et al. 2003b; Xanthopoulou et al., 2007b; Jourdain & Chênevert, 2010; Garrosa et al., 2011)

Bakker and his colleagues (2003b) made one of the first JD-R studies among nurses. In a multigroup analysis among 3092 nurses working in four different homecare organisations. In the study, the scholars tested the correlation between job demands and exhaustion, along with job resources and cynicism. For seven years, the researchers used quantitative and qualitative studies to identify key items that could be used in a questionnaire. Job demands identified were workload, physical demands, emotional demands, experienced harassment (physical and sexual) and problems with work planning. (Bakker et al., 2003b)

The quantitative part of the research showed that job demands correlate with exhaustion. On the other hand, the scholars did not find a significant correlation between job demands and cynicism. The experienced workload was a severe job demand in all four organisations, while the physical demands varied between the organisations. Emotional demands were high in some organisations and moderate in some. Problems with work planning also varied between

organisations. In all organisations, physical harassment was a more significant problem than sexual harassment. (Bakker et al., 2003b) Bakker and Heuven (2006) studied emotional demands further to understand their effect on nurses' well-being and performance. In their study, Bakker and Heuven (2006) confirmed that *emotional dissonance*[5] is a job demand that causes exhaustion among nurses.

In their study, they used Oldenburg Burnout Inventory and Maslach Burnout Inventory to cover affective, physical, and cognitive items like emotional reactions, work objects and contents. Data were collected from 108 nurses working in two departments in a large hospital in the Netherlands. The study focused on situations where the nurses faced extreme emotional situations like illness, suffering and death. To measure emotional demands, Bakker and Heuven used a scale developed by Van Veldhoven and Meijman's (1994) and to measure emotional dissonance Zapf and her colleagues (1999) conceptualization was used. Burnout was assessed Oldenburg Burnout Inventory (OLBI) (see e.g., Demerouti et al., 2003), where exhaustion and disengagement (cynicism) was used as the main components.

The study found that emotional dissonance has a mediating effect between emotional demands and burnout. The study also showed that nurses' laborious emotional requirements lead more often to exhaustion than disengagement. Moreover, it found that the related exhaustion also decreased in-role performance. According to Bakker and Heuven (2006), an explanation could be the requirement of an empathic, caring and understanding attitude that nurses have to show towards patients. They have to separate their personal feelings from professional behaviour. When the feelings do not get outlet, they create stress.

[5] Emotional dissonance refers to situations when nurses must, due to their profession, inhibit or suppress feelings and reactions that normally would occur in an emotionally loaded situation. (Bakker & Heuven, 2006, p. 427)

The only demographic variation was found in the fact that cynicism increases among older and more experienced nurses. However, the results concerning cynicism were not statistically significant. In their discussion, Bakker and Heuven (2006) suggest that reflection and performance feedback could reduce the negative impact of emotional dissonance on well-being and motivation. Another suggestion is that healthcare organisations could train their nurses to reduce the anxiety and despair of the patients. The notion is that if nurses can alleviate the patient's pain by appropriately expressing their emotions, it will reduce their dissonance. (Bakker & Heuven, 2006)

Moreover, Xhanthopoulou and her colleagues (2007b) studied how the job demands and resources of 747 Dutch homecare workers affect burnout. In the cross-sectional design, the scholars studied how emotional demands, patient harassment, workload and physical demands can be buffered by job resources of autonomy, social support, professional feedback and opportunities for professional development (OPD). To assess the critical dimensions of burnout, the scholars used the Dutch version (Schaufeli & Van Dierendonck's, 2000) Maslach's Burnout Inventory – General Survey (Schaufeli et al., 1996). The workload was measured with Furda's (1995) Dutch version of Krasenk's Job Content Instrument (1985). Furthermore, physical demands were measured with Hildebrandt and Douwes's (1995) seven-item scale. Bakker and his colleagues' (2003b) five-item scale was used to measure emotional demands. Furthermore, autonomy was assessed with Furda's Dutch version of Krasenk's Job Content Instrument, and social support was measured with Van Veldhoven and Meijman's (1994) ten-item scale. Finally, professional feedback was measured with Bakker et al.'s (2003b) three-item scale and professional development was assessed with their respective seven-item scale.

In the research, Xhanthopoulou and her colleagues (2007b) found that job demands have the highest impact on exhaustion, while the lack of job resources leads to cynicism. Further, the findings were that physical demands had a weak correlation, while emotional demands had a strong correlation with exhaustion. Patient harassment and workload also had notable effects on exhaustion. Moreover, patient harassment had the highest impact on cynicism, whereas emotional demands also had a strong correlation. The effect of workload and physical demands on cynicism was much lower.

In another study, Jourdain and Chênevert (2010) made similar conclusions. They found that unbuffered job demands lead to exhaustion and lack of resources leads to cynicism (depersonalisation). In a cross-sectional study of over 1600 nurses working in Canada, Jourdain and Chênevert (2010) concluded that the work seldom leads to burnout but that the circumstances are decisive for the outcome. According to Jourdain and Chênevert, the reason for this is that nurses feel a pull towards the profession.

Furthermore, Jourdain and Chênevert (2010) concluded that cynicism correlates positively with turnover intentions and professional commitment correlates negatively with turnover intentions. A new contribution was when the study found a new demand that leads to exhaustion. This factor was work interfering with family life, the second most contributing factor after quantitative overload (workload) and had a stronger correlation to exhaustion than inrole stress or hostility patients (patient harassment).

Additionally, they found that the meaning of work is a resource that buffers both cynicism and exhaustion. The study (Jourdain & Chênevert, 2010) also concluded that a sense of impact is important for nurses. Interestingly, the research did not find that autonomy or professional competence would buffer

burnout. An explanation could be that these are resources that lead to work engagement.

Nonetheless, research has also found that demands do not always lead to burnout but can also promote work engagement if matched by the right resources (LePine et al., 2005). LePine and his colleagues (2005) argue that job demands can be divided into *challenge demands* and *hindrance demands*[6] to explain why job demands can qualify between personal resources and work engagement. Even if there are only a few studies of this phenomenon, there are indications that the division also applies to nursing for some demands. For example, in 2013, Bakker and Sanz-Vergel (2013) studied how home healthcare nurses stay engaged and maintain their psychological well-being. They found that emotional demands can increase work motivation if they have the potential to produce positive feelings if overcome. On the other hand, Bakker and Sanz-Vergel (2013) found that time-related work pressure is an unnecessary obstacle that thwarts goal attainment.

Bakker and Sanz-Vergel (2013) tested the assumption among Dutch nurses working in home healthcare. The work consisted of nursing, specialised care, pedagogical guidance and housekeeping. In their study, Bakker and Sanz-Vergel (2013) hypothesised that emotional demands could work as challenge demands, drawing to earlier studies by McQueen (2004) and Brotheridge and Grandey (2002), who have argued that nurses feel satisfaction with interacting with patients feeling – they see it as an opportunity make a difference in other peoples' lives. Similarly, de Jonge and colleagues (2008) have confirmed that emotional job demands can positively affect work motivation and creativity.

[6] C*hallenge demands* explain why job demands can lead to personal growth and the feeling of achievement, while *hindrance demands* are those that only increase the risk of burnout if ignored. (Bakker & Demerouti, 2017)

Scholars have provided different explanations for this. One explanation is that emotions experienced can be rewarding and thus create positive motivational outcomes (Bakker & Sanz-Vergel, 2013). Another explanation is that nurses deliberately have chosen their profession and consider job demands challenging accordingly (de Jonge et al., 2008). However, these theories have still to be confirmed in future research.

Bakker and Sanz-Vergel (2013) also made a second hypothesis that working under time pressure would be a hindrance demand for nurses. Drawing on earlier studies of McVicar (2003) and Bakker et al. (2003b), Bakker and Sanz-Vergel (2013) hypothesised that time-related work pressure is a significant stressor in nursing. In their study, McVicar (2003) showed that nurses become frustrated under time pressure, creating a trade-off with high-quality care. Likewise, Bakker and his colleagues (2003b) showed that work pressure increases the likelihood of exhaustion and decreases the feeling of accomplishment.

The research was conducted with a working condition questionnaire with 120 participants. To ensure that the findings were independent of operationalised job demands, Bakker and Sanz-Vergel used two indicators for both demands. They used Bakker et al.'s (2003b) three-item work pressure scale and two other Linkert-type scales to study work pressure. In the three-item work pressure scale, participants answered how hindering (3 items) or how challenging (3 items) they experienced the item given. In the Linkert scales, participants had to answer how hindering, demanding and difficult and how challenging, pleasant and motivating they found work pressure. (Bakker & Sanz-Vergel, 2013) To examine emotional demands, Bakker and Sanz-Vergel (2013) used

three items from Van Veldhoven et al.'s (2002) emotional demands scale and a Linkert scale identical to the one used for the work pressure.

The results (Bakker & Sanz-Vergel, 2013) showed that work pressure is perceived as a hindrance among nurses. This follows earlier findings of LaPine, and her colleagues (2005) that work pressure is a hindrance demand in nursing. Similarly, the study (Bakker & Sanz-Vergel, 2013) also showed that emotional demands, in some cases, can be challenge demands. Job demands become challenging when the nurses can provide solutions, relief or comfort in an emotionally challenging situation.

2.2.2 Job and personal resources in nursing

Demerouti et al. (2001, p. 501) have defined *job resources* as:

> Those physical, social, or organizational aspects of the job that may do any of the following: (a) be functional in achieving work goals; (b) reduce job demands and the associated physiological and psychological costs; (c) stimulate personal growth and development.

Leiter and Bakker (2010) say that goal achievement is related to the instrumental value of job resources, while growth, learning and development are linked to the intrinsic components of motivation. Together these resources contribute to work engagement. The two-way interaction is created when job resources also buffer job demands and thus reduce the risk of burnout.

The early JD-R models assumed that job resources were those things that lead to work engagement (Schaufeli & Taris, 2014). However, later studies have also proved the exitance of dual pathways where the two characteristics

modify each other. Bakker and his colleagues (2005) provided the first evidence of this. They found that job resources can buffer negative outcomes caused by job demands.

In nursing, this was confirmed by Xanthopoulou et al. (2007b). They found that autonomy and opportunities for professional development (OPD) are the most important resources for buffering exhaustion and cynicism caused by physical demands, workload emotional demands and patient harassment. Furthermore, the research found that social support and professional feedback are likewise important resources for buffering cynicism caused by emotional demands and patient harassment.[7]

Nevertheless, de Jonge and Dormann (2006) say that the buffering effect of resources can be enhanced by matching them with a specific demand. Similarly, de Jonge et al. (2008) have concluded that job resources can be matched with personal (cognitive or social) demands to increase work engagement.

Jonge and his colleagues (2008) tested this assumption in a cross-sectional study for over a thousand nurses working in different occupations. The scholars studied the moderating relation between job resources and job demands on health and well-being outcomes. In the study emotional (matching) and cognitive (non-matching) job resources were compared against emotional job demands. Emotional demands were assessed with an eight-item scale with three sub scales (see e.g., van Vegchel al., 2001). The scales were scored from 1 to 5. Emotional job resources were examined with the Dutch translation of Krasenk's Job Content Qestionnaire, while cognitive job resources were

[7] A more detailed description of methods used is presented in the previous chapter.

examined with a five-item scale derived from de Jonge et al.'s (1996) job control questionnaire.

Further, work motivation, employee creativity and emotional exhaustion were used to measure motivational and health-related outcomes. The scholars used de Jonge et al.'s (2000) two-item scale with a five-level scoring to measure the motivational outcomes. A 12-item scale developed by George and Zhou (2001) was used to emphasise employee creativity. Masclach's Burnout Inventory was used to measure emotional exhaustion. Finally, demographic control variables included were included. These were: gender, age, education and employment status.

The study (de Jonge et al., 2008) confirmed that moderating effects were more frequent and higher when job resources matched a particular job demand. Four out of 18 interactions between emotional resources and demands decreased the likelihood of emotional exhaustion. Out of these, emotional support was the resource that best buffered emotional exhaustion. The buffering effect was highest when the emotional job demand, like an aggressive client, could be specifically identified. This indicates that employees use emotional resources selectively depending on the demand. The study also confirmed that emotional exhaustion is more likely without emotional support. Furthermore, when healthcare workers reported support from supervisors and colleagues, creativity and work motivation were also higher. Yom (2013) made similar conclusions about supervisor support: it buffers emotional exhaustion, cynicism (depersonalisation) and lack of accomplishment.

Contrary, of the interactions between cognitive resources and emotional job demands only one out of nine positively affected work motivation and creativity. This happened in cases where healthcare workers reported high-work

control. De Jonge and his colleagues (2008) say that the ability to control one's work makes coping with emotional job demands easier. It also decreases stress and releases positive energy that increases work motivation.
Moreover, recent theory suggests that *personal resources* can also buffer job demands and promote work engagement (see Figure 1). Xanthopoulou and her colleagues (2009, p. 236) have said that personal resources are:

> A positive self-evaluation that are linked to resiliency and refer to individuals' sense of their ability to control and impact upon their environment successfully.

Theory suggests that personal resources have a direct positive effect on work engagement and a buffering effect on negative outcomes caused by job demands. However, some scholars argue that the moderating effect is limited compared to job resources. (Bakker & Demerouti 2017; Bakker & Demerouti, 2014; De Jonge et al., 2013). Furthermore, the usefulness of personal resources also seems to be dependent on the profession. For instance, Heuven et al. (2006) found that self-efficacy buffered the effect of dissonance on work engagement among flight attendants, while Xanthopolou et al., 2009 did not find such correlation among teachers.

Nevertheless, personal resources have proven to have longitudinal outcomes, such as positive effects on work engagement and on-job performance, through one's ability to impact the work environment. (Bakker & Demerouti, 2014; Luthans et al., 2010; Bakker et al., 2013) Luthans et al. (2007), personal resources that increase work engagement are self-efficacy, optimism, hope, goal-orientation and resilience. These also correlate positively with job satisfaction, enjoyment and happiness (Bakker et al., 2013). Additionally, Xanthopoulou et al. (2013) studied customer service workers and concluded that

self-efficacy strengthens work engagement when emotional dissonance and demands are high.

In 2011, Garrosa and her colleagues (2011) conducted a study where they examined the interaction between *personal resources* (emotional competence, optimism, and hardy personality) and job demands (work overload, emotional demands, role ambiguity and lack of autonomy) and how they affected burnout and work engagement. However, they used a joint stressor for burnout (there was no separation between cynicism and exhaustion).

To measure optimism, the scholars used Scheier et al.'s (1994) Revised Life Orientation Test, hardy personality was measured with Garrosa et al.'s (2008) 17-item hardy personality scale and competence was measured with Garrosa et al.'s (2005) emotional competence scale. To assess outcomes, the study used Schaufeli et al.'s (2002) work engagement scale and Garrosa et al.'s (2008) nursing burnout scale. The study also included socio-demographic features as control variables. This included gender, job status (permanent/temporary), work arrangements (regular/shiftwork), contacts with patients (direct/indirect), and years of experience.

In the study (Garrosa et al., 2011) conducted for over 500 nurses, the scholars concluded that the emotional exhaustion was higher among permanent than temporary nurses. In the same way, those who worked shifts were more likely to feel exhausted. Further, personal resources had buffering effects on burnout and a positive effect on work engagement. Hardy personality was the most important personal resource for buffering burnout caused by emotional demands, lack of accomplishment and cynicism (depersonalisation). Optimism has positive effects on all work engagement dimensions (dedication, vigour absorption), whereas it also buffered emotional exhaustion, and lack of

accomplishment. According to the study, optimism does not buffer cynicism. The study explains that optimism provides tools for coping with stressful situations, as it often is related to positive outlooks, whereas lack of emotional competence predicted cynicism, lack of accomplishment and low dedication. This indicates that in nursing, certain types of personal skills are more critical for coping with the work's emotional job demands.

2.2.3 Suggestions for improvement

The main critique of the JD-R model is how well the results are imitable between different settings, as the undetailed nature of the model has made drawing practical implications between professions, occupations or challenging. Some studies have even shown varying results between teams within an organisation (Bakker et al; 2003b; Bakker & Sanz-Vergel, 2013; Schaufeli and Taris, 2014) Therefore, it is important to this study to acknowledge that differences can occur between care units and try to further understand why these differences occur.

Secondly, scholars have mainly focused on testing earlier results with the same parameters instead of searching for new ones. Studies have mainly focused on how to build more robust research settings and hypotheses than discussing specific elements within the model. This is a problem that often occurs with quantitative studies. The good thing is that qualitative approaches provide opportunities to find new parameters. In this case it means finding new job demands and resources of nurses in assisted living facilities and trying to understand how these relate to earlier studies and nursing in general.

Moreover, scholars like Bakker and Demerouti (2017) and Schaufeli and Taris (2014) have discussed how research could be improved. One proposed improvement suggestion is to use qualitative studies to reveal new resources and

demands and to understand underlying mechanisms. Another suggestion has been to include profession-specific personal demands in the model (Bakker & Demerouti, 2014; Bakker & Demerouti, 2017). The problem with personal preferences is that they vary so much that it might be impossible to find correlation between personal demands, burnout and work engagement. On the other hand, this provides an opportunity for this study to add to previous literature by looking after personal demands that are related to the nursing profession or to the occupation of working in assisted living facilities.

Considering that personal demands have been proposed as an improvement, it is a surprise that they have not been applied more broadly. For example, Prieto and her colleagues (2008) have suggested that the search should start from widely recognized concepts such as *goal setting*. Similarly, Hyvönen et al. (2009) have proposed that a better understanding of workers' goals could improve research on work engagement. Locke (1978) has proposed in his *goal setting theory* that job satisfaction is created by setting purposeful goals that then are achieved.

Furthermore, Lorente Prieto and her colleagues (2008) have suggested that expectations could be a possible personal demand. This suggestion points back to Conrad and her colleagues (1985) suggestion that job satisfaction is affected by expectations of what the job should provide. My suggestion is that JD-R studies could look at previous studies about job satisfaction, which has been one of the most dominant fields in industrial and organisational research. The greatest problem is that there is also proof that job satisfactions does not always correlate with job performance. (Demerouti & Cropanzano, 2010; Judge et al., 2017).

Finally, the model does not explain why a person has chosen a particular profession and if they are personally fit for it. This study will not focus on the

issue but will ask related questions in the interviews and the incomplete sentence blank boundary object to get a notion if the nurses have common motives for choosing their profession.

Finally, the literature review also shows that, in nursing, research is still to be conducted more on personal resources to understand how personal resources lead to positive organisational outcomes, which resources buffer a specific demand and how these resources can be developed. Hence, this study will try to identify specific job demands of nurses working in assisted living facilities and if they possess any personal resources that enable them to cope with these demands.

3 Methods

JD-R research has often relied on quantitative research methods (Bakker & Demerouti, 2014). However, the restriction with quantitative methods is that they require a large sample to provide reliability and validity (Johnson et al., 2007). That is why JD-R nursing research has mainly focused on hospitals and large homecare organisations. Furthermore, Bakker and his colleagues (2003) have described that to conduct a quantitative study successfully with the JD-R model, one must understand the studied environment and occupation dynamics.

Furthermore, the benefit of a qualitative approach is that it provides flexibility to focus on whatever appears interesting during the research process. In contrast, quantitative studies only explore variables determined in advance (Charmaz, 2014). In this way, qualitative studies are more appropriate for explaining reasons and relationships of social phenomena (Johnson & Durberly, 2000; Patton, 2002), which is essential when entering new settings.

As assisted living facilities are few and relatively small in size and a previously unexplored organisational setting, this research has chosen a *qualitative case study* as its approach. The aim is to give a detailed and rich description of reality, combining multiple data sources. Inductive by nature, a case study develops an understanding of the dynamics present in single settings where the subject of study and context are intertwined. The evidence is presented both qualitatively and qualitatively, with focus on repeatability.

Nonetheless, in qualitative case studies, the collected data should emphasise action and process and try to collect data from multiple sources. The data should also be embedded in rich data. (Eisenhardt, 1989) Methods familiar with constructing grounded theory are used to collect and analyse such data (Charmaz, 2014). Even if the aim is not to construct a new theory, grounded

theory method allows for simultaneous collection and processing. The methods allow for exploring the work of the nurses in detail and as they perceive it.

Moreover, it allows clinging to any emerging phenomenon thanks to its iterative nature. The most important is that the data collection is structured and systematic to provide valuable insights and information about the research subject without sacrificing details. This ensures a fit between their initial research questions and the emerging data. (Charmaz, 2014)

Finally, a qualitative researcher should also be aware of the outcome of the social, cultural, and historical context in which the research takes place. This means that researchers must be reflexive about what they bring to the scene and how it affects the setting. While collecting data is a question of identity and etiquette, it is also a question of familiarity and trust. The more the participants trust the researcher, the more they will feel comfortable and relaxed, affecting their honesty and how detailed information they will provide. (Charmaz, 2014)

3.1 Research setting

The focal organisation of this research is a company that provides rehabilitation and accommodation services for persons that are physically disabled. The organisation has 46 assisted living facilities around Finland that can accommodate 10 to over 100 clients. The two focal units in this research have 11 and 16 apartments, respectively. Unit 2 has 11 apartments and is located in the Helsinki area. Unit 1 is located outside the capital region. In both units, the nurses have an office and a living room separate from the apartments in the same building.

The nurses work in three shifts, three to five nurses in the morning and evening shifts and one nurse in the night shift. The unit's managers plan the work schedules for three weeks at a time. The manager is also responsible for the administrative work related to the nurses, residents and assisted living facility. Boundary conditions, such as mandatory work hours and rest times, are regulated by law, but the planning is up to the manager.

In total, eight nurses participated in the research of which all were females aged between 30 and 50. The distribution of the participants was so that from the first care unit five out of eleven nurses participated and from the second care unit three out of nine nurses participated. For all participants, working with disabled people was fairly new, with work experience between three and five years. Only one nurse had worked in the profession for longer than five years. The work of the nurses is to help the residents with daily routines and to provide medical care to those that need it. The daily care varies from client to client. However, the care consists of morning and evening routines and additional tasks the clients may ask for. Some clients go to work, but most spend their days at the living facility. After every client contact, the nurses report the care procedures and medicines. Cooking and housekeeping are done by separate service personnel.

3.2 Data collection

Case studies that utilise grounded theory have all in common in that they start with rich data - data that are full, focused and detailed (Eisenhardt; 1989; Charmaz, 2014). For the collection of rich data, I conducted six interviews, four in the first care unit and two in the second. The interviews lasted between 13 and 24 minutes. These interviews were transcribed, coded and rewritten in the form of research memos. The second primary data source was participant

observations, one session in each unit, which lasted for 1 hour 20 minutes and 1 hour 14 minutes respectively.

I did the participant observations with the help of *work reflection workshops*, where the participants' task was to envision their dreamwork and how well their current work correlate with those expectations. Furthermore, they had to discuss and give improvement suggestions hoe their current work would be more like their dreamwork. The workshops provided a platform for the nurses to interact in an authentic environment with fairly light arrangements. Another aim of the work reflection workshops was to create an authentic environment where the nurses would interact with each other while reflecting, discussing, and performing tasks. The workshops were not recorded to ensure an honest and open atmosphere, but instead I wrote down subjective observations about what the nurses discussed about, what they said about it and how they interacted with each other. I also separated between comments that they said to inform me and spontaneous comments to each other. Both workshop sessions generated one and a half pages of handwritten notes.

After the workshops, I wrote one more page of own reflections about how the nurses interacted and behaved during the workshops. These generated three pages of size A4 written on computer with Times New Roman, font 12, spacing 1.15 for respective care unit. I then further be coded the notes and wrote them into memos.

In addition, I collected secondary data from discussions with the unit managers and the HR function of the healthcare organisation. The secondary data helped me to understand the context, evaluate findings and draw conclusions based on the findings. The data collected is summarised here after in Table 2.

Table 2: Data collected during interviews and participant observations

Data collection method	Number of participants	Length	Raw data produced
Interviews in care unit 1	4 persons	13 to 24 minutes	32 pages (A4), Times New Roman, font 12, spacing 1.15
Interviews in care unit 2	2 persons	13 and 22 minutes	20 pages (A4), Times New Roman, font 12, spacing 1.15
Participant observations in care unit 1	5 persons	1 hour 20 minutes	3 pages (A4), Times New Roman, font 12, spacing 1.15
Participant observations in care unit 2	3 persons	1 hour 14 minutes	3 pages (A4), Times New Roman, font 12, spacing 1.15
Boundary object 1 (Motivation hexagon), care unit 1	5 persons		50 pink note stickers, 2 green note stickers.
Boundary object 1, care unit 1	3 persons		26 pink note stickers, 20 green note stickers

Boundary object 2 (Action matrix), care unit 1	5 persons		57 improvement suggestions (some overlapping)
Boundary object 2, care unit 2	3 persons		44 improvement suggestions (some overlapping)

Kathy Charmaz (2014) says that rich data is detailed, complete and focused and gets beneath the surface of subjectivity. There are no strict guidelines on how to collect rich data, but it is up to the researcher. Most important is to let the research questions guide the data collection and to use methods that suit the topic and the setting. Charmaz (2014) encourages the researcher to collect data from varied sources and vantage points to provide different viewpoints and material that can later be used for comparison. She continues by saying that for large projects, like a thesis, it might be beneficial to use multiple data-gathering approaches to get different views of reality. That is the reason for using two different data collection methods in this research.

In the interviews, I asked the nurses seven open-ended questions (see Appendix 1); five questions concerning their work and how they perceive it, one about leadership and one about their relationship to work. Moreover, the purpose of the interviews was to establish trust between the workshop participants and me as facilitator, so that the participants would act more spontaneously and be more open and honest about their work. Additionally, the interviews allowed the nurses to reflect upon their work to be better prepared for the following workshops.

The workshop included two *boundary objects*: a *motivation hexagon* (Appendix 2) and an *action matrix* (Appendix 3). I used the motivation hexagon to identify current job demands and resources and the action matrix to let the nurses give proposals on how the current work could be improved. Additionally, an *incomplete sentence blank* (Appendix 4) was used as a third boundary object to prepare participants for the workshops. It also provided valuable information not covered during the interviews, such as why the nurses had chosen the profession and about future plans.

Furthermore, I took informal *fieldnotes* throughout the research. These notes were taken to support the primary data collected. In the fieldnotes I focused on facility arrangements, work arrangements, for example, what the nurses did during their off time. Further, I wrote down what the nurses talked about, how they interacted with each other and the managers of the units. The fieldnotes were my subjective observations about the research environment in a written form. I wrote approximately one page of personal observations by hand from both facilities. The fieldnotes helped me to better understand the research setting, to make sense of the collected data and helped me to draw conclusions.

3.2.1 Interviews

"Interviews are the most common form of data collection in qualitative research" (Charmaz, 2014, p. 79), as they are the most effective way to obtain personal and specific data about a topic. On the other hand, they usually need more sustained involvement, like ethnographic studies (Charmaz, 2014). Another flaw is that interviewees can portray their views, experiences and actions in interviews as they want. The interviewees can portray reality differently than they perceive it and only give their personal views. Charmaz (2014), on the other hand, does not think that this decreases the value of the data that

good interviews can provide. She says it is more central to be aware of the larger context in which the interviews occur and the purpose of the interview.

Another downside of interviews is that they lack the benefits of sustained involvement, which often is required to understand social constructs or more complex organisational features. This research tries to tackle this problem with the help of participant observations, which are explained in the next sub-chapter.

Nonetheless, this research I used intensive interviews with open-ended questions to take the first steps into the research field. By focusing on the nurses' statements about them as professionals and their views on work, the idea was to understand what they might be looking after on a personal level. I also used the interviews to prepare the participants for the workshops by developing mutual trust and making the participants reflect on their work and their relationship to it. By making the nurses reflect, the aim was to have more productive and efficient workshops. Finally, the interviews also provided an opportunity for me to explain the purpose of the research and thus decrease skepticism towards it.

Before interviewing the participants, I collected essential background information. The purpose of the background information helped me to understand the context and to ask the right questions, or as Charmaz (2014) puts it, that background information enables the researcher to tailor the interview questions to lead smoothly to a subsequent open-ended discussion. It also helps to develop a credible appearance before the interviewees, which, according to Charmaz (2014), can have a much more significant effect on the responses than attire and demeanour. Finally, the background information helped me to make sense of the data obtained while keeping the mind open towards the subject.

To collect background information, I did two one-hour-long discussions with the top management before the interviews to learn about the organisation and the situation. The discussions helped me familiarise myself with procedural issues and technical details that helped engage and understand the participants and guide the conversations. Based on these discussions I could write an interview guide (Appendix 1) that was used during the interviews. The interviews I conducted were open-ended and followed the interview guide. The interview guide included seven different questions about six different themes: work and workplace description, work engagement, leadership, challenges at work, and relationship toward money.

I did a total number of six interviews: four out of six participants in the first unit and two out of three in the second. The interviews lasted between 13 and 24 minutes. They revealed that nurses have different backgrounds, experiences, and motives for choosing their profession. In addition, the unplanned and informal discussions before and after the formal interview revealed much about the nurses' experience, ambitions, and plans. The longest discussion that I had after the formal session was approximately 15 minutes. I did not record these discussions, but I included them as notes in the interview transcripts.

3.2.2 Participant observations

In studies focusing on social contexts, field observations have proved to be a useful data collection method (Charmaz, 2014). The benefit of field observations is that they allow the researcher to observe the studied phenomena from the grassroots level and provide an opportunity to observe the focal group in an authentic environment as they interact. Furthermore, Bakker and his colleagues (2013) encourage using participative methods in qualitative JD-R

research to recognise the employees as experts in their work. One field observation method that can be used is *participant observations.*

To create an environment for participant observations I created a work reflection workshop based on my personal experience from Scania's workshop model. Nevertheless, Ørngreen and Levinsen (2017) say workshops provide a cooperative approach where participants can acquire new knowledge, participate in creative problem solving and redesign their work. Workshops also bring the researcher closer to sustained involvement, which is central to participant observations (Charmaz, 2014). They have also provided promising results in the industry. For example, Scania Innovation Factory (see The Scania Work Playbook) revealed constructs of social relations, work community and attitudes towards work that they had not been able to capture in questionnaires. To develop the model, Scania gathered data from well-being questionnaires, exit interviews and discussions with service personnel.

To make reliable observations during the workshops, Ørngreen and Levinsen (2017) say that the workshop facilitator only should instruct and guide the work but not be involved. However, Charmaz (2014) says that participant observers can participate in discussions as long as they provide *thoughtful encouragement* (Charmaz, 2014, p. 82).

In this research I used workshops to create an environment where the nurses would interact and discuss chosen themes relevant to answering the research question. The material used in the workshop did not ask directly about job resources and demands. Instead, the workshops used an indirect approach where the material covered closely related concepts and themes (see Table 3), which the nurses could easily relate to. A secondary aim of the workshops was also to allow the nurses to expand their understanding of their work.

Furthermore, to cover the chosen topic I used *boundary objects*. They were used to collect data, but also to guide the discussions and provide additional evidence for the findings. The boundary objects were: 1) motivation hexagon (Appendix 2), and 2) an action matrix (Appendix 3).

The motivational hexagon consisted of six categories based on the chosen topics: work-related and personal aspects. The work-related aspects (workflow, self-expression and work community) cover factors linked to JD-R outcomes, such as role clarity, social support, professional feedback, work equipment, autonomy and learning opportunities (Schaufeli & Bakker, 2010).

The lower part of the canvas (external incentives, survival and work-life balance) covers the complexity of contemporary workplaces that cannot be explained by internal factors (Schaufeli & Bakker, 2010). These include personal expectations that are related to extrinsic rewards, survival and work-life balance. Survival describes the basic needs for safety and survival that everyone needs outside the work, while work-life balance describes the match between the work and other areas in life, such as work-family conflict, free time, travel time to work and social demands (Halbesleben, 2010; Salanova et al., 2010; Chalofsky, 2003; Zeijen et al., 2021; Rosso et al., 2010).

Table 3: Categories and factors included in the workshop model

Category	Workflow	Self-expression	Work community	External incentives	Survival	Work-life balance

Data from the workshops were collected by analysing the material produced by the nurses on the boundary objects and notes taken as a participative observer. The material produced by the nurses on the boundary objects contained

notes on stickers placed on the motivation canvas and improvement suggestions written down on the motivation matrix.

A third boundary object used was an *incomplete sentence blank* (ISB) (Appendix 4). It is commonly used in personality psychology to reveal personal wishes, desires, fears and attitudes. In this research I used it to reveal underlying attitudes and for triangulation of data. This was possible thanks to the ISB's semi-structured and projective nature. (Weis, 2014, Rotter et al., 1992) I also used the ISB as an opportunity to prepare the participants for the workshops. Hart (2007, p. 9) has said that "having the participants think about the themes covered in the workshop in advance has proven to help participants focus on their role in learning". The participant's task was to complete a given sentence according to what first came into his or her mind.

The ISB was the best indicator to predict the productivity of a participant, while the interviews did not correlate directly with how many notes a participant produced. For example, one who had a 13-minute-long interview produced 15 notes and one who had a 16-minute-long interview only produced ten notes. Those who wrote longer sentences on the ISB also produced more notes in the workshops. This research could not determine if the correlation is related to their personality or the amount of reflection before the workshop.

Furthermore, the data obtained was used to evaluate the openness of the information gained in the interviews and to gain additional information about personal values, emotions, and attitudes towards work. It also provided information about why the person had entered the profession in the first place. Finally, it also helped to understand professional ambitions that were not discussed during the interviews or workshops.

In addition to the data collected with the motivation hexagon and the action matrix, I also did participant observations during the workshops, which I wrote down as notes according to ethnographic guidelines. In ethnographic studies, the researcher focuses on what is happening and records it as carefully as possible (Charmaz, 2014). I had the concern that voice or video recording could have drawn the attention away, increased scepticism and spontaneous behaviour, which would have been harmful to the reliability of the answers. The notes included observations about discussion topics of group dynamics, power relations, social interactions, body language and facial expressions. As mentioned earlier, the participant observations generated three pages of notes in total.

The workshop had four phases. In the first phase, I asked the nurses to envision their dream work and what elements it would include. Next, I instructed them to write each element on a pink-coloured sticker (item). Depending on the participant's productivity, this took between three and twelve minutes. Then, I asked the participants to assign a score on a discrete scale from one to three in the upper left corner of each sticker. The scale illustrated the participant's subjective view of every item's importance. I described the scale as follows: 1=nice to have, 2=important, 3=vital. During this phase, the nurses were allowed to discuss with each other.

Phase two began by making the participants conversant with the motivation hexagon (Appendix 2). First, I explained the background and the categories of the canvas before asking the nurses to assign each sticker to the most suitable category on the motivation hexagon. After this, the participants were given a 10-minute break to relax and reflect briefly.

After the break, I asked the participants to complete the hexagon with items written on green stickers. The idea was to allow adding ideas that had emerged after the hexagon presentation and during the break. It also revealed differences between the memory based and guided thinking processes.

In the third phase, I instructed the participants to assign a score in the upper right corner of every sticker on a discrete scale from one to three based on how well their current work matches their desires. The scale was described as follows: 1=poorly, 2=satisfactory, 3=well. After that I asked the nurses to calculate the respective sum of the scores in both corners for each category. The respective sums were then divided by the number of stickers in each category to form an average. This procedure generated two average scores, P1 and P2 (see Table 5), where the former represented the importance of each category and the latter the current score.

Based on the average scores, I asked the nurses place a corresponding dot with 0.5 decimal accuracy on the canvas. The scale was such that the innermost hexagon represented the 1-point line and the outer hexagon the 3-point line. The P1 scores were connected with a straight line, and the P2 scores were connected with dashed lines. The gap between the lines illustrates how well the current work fulfils one's hopes and expectations of a dream job.

In the final phase, I gave participants the task of filling in the action matrix (Appendix 3), where the task was to think about what the participant could do, what the superior could do and what the organisation could do to decrease the gap between the lines. Completing this boundary object generated concrete examples of job demands and resources that the nurses think enable or hinder their work.

3.3 Data analysis

I used content analysis methods (Weber, 1990) to analyse the qualitative data. The steps followed were common with grounded theory (Charmaz, 2014), beginning with *initial coding* of the transcribed interviews, fieldnotes and workshop observations. The second step of the analysis was to group separate items into prominent themes through *focused coding*, and the last step was to write memos based on these themes. I used then the JD-R framework group initial items into themes. The findings are listed in Table 4 on page 56.

I analysed the participant observations similarly, except that the data was compared with the boundary objects. Emphasis was on emerging trends, significant deviations between notes and boundary objects, and language use. The findings are listed in Table 5 on page 61.

Finally, I projected the analysed data against findings from the interviews and integrated into Table 6 (page 72). The relationships between the findings are presented in Figure 2 on page 73.

3.3.1 Analysis of interviews

I began the analysis of the interviews by coding the transcripts. The coding was done in two rounds with initial and focused coding. In this context, coding means actively naming data for further analysis. The idea of coding is that it captures the relevant data from the empirical reality and provides methods for further analysis (Charmaz, 2014). I did the coding with a computer tool called *Atlas.ti* – a computer tool designed to turn data into qualitative insights.

Before the analysis could begin, I transcribed all the interviews by listening to the recordings. Even if a transcript cannot mediate feelings or emotions, I

included a short description of the interviewee at the beginning of the transcript. The description included the interviewee's openness and attitude towards the interview, which later was used to monitor how the behaviour changed during the workshop. I also included notes from off-the-record discussions in the end of the transcript if such occurred.

The initial coding began by studying words, lines, and segments, adding labels to items of interest for this study. For example, the quote: "the residents are very pleasant, and the colleagues and the work is easy", generated three codes: client relations, colleagues and clarity of work. By holding the coding open-ended, with the JD-R model in mind, the idea was to spark thinking and allow new ideas to emerge. This also allowed me to reflect on what remained unsaid and what areas I should cover in the remaining interviews. At this stage, the task was only to identify different phenomena and not analyse them further. In the initial coding, I identified 33 primary codes. These codes are listed in Table 4 in the left column.

After all the interviews, the coding continued with the second round of focused coding, with the JD-R model being the focal lens. I began by labelling each work characteristic, depending on whether it was a job demand, job resource, personal resource, or personal demand. The JD-R model helped evaluate which label should be given to each item. In this process, it was equally important to consider what had been unsaid, recalling expressions, pauses in sentences and choices of words. For example, observation: when asked about notable incidents during the years, the nurse paused for ten seconds and said, "nothing special", with a giggle. I analysed this as if the interviewee held back information since the question gave birth to thoughts and emotions, but the oral answer indicated the opposite.

After assigning labels to each work characteristic, I then grouped the codes and assigned them under suitable themes. The interviews generated eight themes, with work community being the most discussed. In addition, the interviews generated seven individual items that were discussed on twelve different occasions. The themes can be found in Table 4 in the right column.

Table 4: Work characteristics found in initial coding and themes identified.

Codes	Themes
Colleagues (4) Group cohesion (2) The gang Work team Peer support (2) Openness Mutual trust (4)	Work community (job resource)
Working to support family (2) Not quitting for money (4) Working only for money Money as a social security Monetary independence Money opens opportunities	Social needs (personal demand)
Division of tasks (4) Routine work Shift-related tasks (2) Basic nursing (6)	Clarity of work (job resource)
Hectic mornings Clients in que (2)	Time criticality (job demand)

Short contact time On-demand calls Scheduled visits	
Changing work shift (2) Recognizing life situations (2) Possibility to agree with peers	Flexibility of manager and peers (job resource)
Awareness of work status Awareness of client situation Setting the standard (2)	Situational awareness of manager (job resource)
Thanks, form the clients Interacting with clients Appreciation from clients Discussions with clients (2) Making someone's day	Positive client interactions (moderating factor)
Wide range of tasks Non-routine work	Task diversity (job resource) Autonomy (job resource)
Short time for recovery Abruption in family routines Feeling of working constantly	Shift work (job demand)

The final step was to write memos based on the coding. The memos are, in this case, informal analytical notes that help to categorise the data before the final synthesis (Charmaz, 2014). Furthermore, the memos provide an opportunity to reflect on the data and to evaluate it critically, thus providing an opportunity for abstraction. The memos also worked as a method to compare the interviews with participant observations to draw general conclusions and understand nuances. Finally, the information in the memos was used to write the findings.

In the interviews, all nurses showed self-efficacy and described themselves as competent at work. It was surprising to discover that none of the nurses had initially planned to work at an assisted living facility but had gotten interested during their internships in school. Two nurses said that prejudice against working with physically disabled people had been a limiting factor, and two nurses said that they thought that the work would be monotonous. Instead, all found the work to be diverse and clear-structured. In every shift, the nurses have specific predetermined tasks, but the tasks also depend on the care the client needs.

Common for all the interviewees, except for one, was that they had previously worked with people or in customer service occupations. A common reason for every participant to choose their current profession was that they wanted to work with people. Five out of six interviewees had done something else before becoming a nurse. One had worked as a thai-boxing coach for over 20 years and later as an after-school teacher. One had worked at a petrol station and in a pizzeria. One had been a daycare mom for over ten years. One had worked as a barber, and one as an accountant.

All nurses had worked for a relatively short time as a nurse. The one who had the longest experience in nursing graduated in 2015. No one had worked longer than four years in the current position. All the interviewees described that their original plan was not to work with disabled people and that they had found this area of specialisation during their studies.

When asked what makes them happy at work, the nurses mentioned either their colleagues (close co-worker relationships and a positive team spirit) or thanks from the clients. Some mentioned both. One nurse described that it is

a combination of the sense of doing something important by making life better for somebody else and feeling appreciated at the same time.

When asked about resources and demands, all nurses described receiving help from colleagues as the most valuable resource. The greatest demand, on the contrary, was the lack of enough personnel, according to everyone. The shortage makes the work shifts more hectic, which causes stress. A personnel shortage also causes an increased need to work overtime, negatively affecting private life and recovery. Too few nurses in the shift also result in the option of receiving help from colleagues disappearing when all nurses are occupied simultaneously.

Furthermore, good leadership was mentioned as a resource that enables a good workflow. It also affects the recovery and work-life balance indirectly. In contrast, it also affects the work community negatively if it does not work. There were a bit different views on good leadership between the units. In unit 1, all participants described that a good superior is flexible (with work times) and treats everybody equally. Some also mentioned that good leadership ensures that the work is done according to a certain standard. This requires the manager to be aware of the state of work and personnel. In unit 2, central leadership abilities mentioned were the ability to listen to the nurses and being good at communication. One of the nurses also mentioned the ability to make fast decisions. Compared to later workshop results, one can see that in the interviews, the nurses described good leadership, which works well in their current workplaces.

The lottery question generated various answers. First and foremost, the question reflected personal dreams. The ones with longer work-life experience were ready to leave work entirely, while those between 30 and 45 years of age

were ready to continue working after winning the lottery. Two nurses said they would go on an extended vacation and then continue to work normally. They would only take longer holidays in the future. These two nurses did show a low need for further education or career advancement in the workshop results. However, they valued recovery highly in their workshop answers. One nurse said that she would buy a new house for her family and work 50 per cent of the time, spending more time with her family. This participant valued external incentives, survival and work-life balance in the workshop answers. A fourth nurse said she would buy a house for her parents and family and continue to work partially. She emphasised the same categories as the former participant. The only nurse who had plans to advance in her career said that nothing would change and that she would, at some point, maybe go on study leave to become a staff nurse.

3.3.2 Analysis of participant observations

The analysis began by analysing the notes taken during the workshops. The notes were analysed similarly to the interviews by identifying items and grouping them into themes. The memos that emerged were then compared to the material produced on the boundary objects.

The boundary objects were analysed separately for each assisted living facility, category by category. The items were then compared with memos from the participant observations. The input provided by the participants in the motivation hexagon is summarised in Table 5. Furthermore, a cross-comparison was made between the assisted living facilities to identify differences between the units.

Table 5: Summary of the boundary objects. Scores and work characteristics found in each category.

Category	Unit 1 P1/P2		Work characteristic	Unit 2 P1/P2		Work characteristic
Workflow	2.35	1.64	Enough personnel (4) Equipment Facilities	2.39	1.61	Enough personnel (2) Managerial awareness Open communication Competence of workers
Self-expression	2	1.3	Task diversity (2) Time with clients (3) Recognition from clients Autonomy	2.67	3	Passion for care work Professional growth Recognition from clients Time with clients Support from friends and relatives
Work community	2.73	2.67	Supporting colleagues (4) Equal treatment Common activities	2.5	2.17	Co-worker support (2) Managerial support Respectful and friendly atmosphere (2)

External incentives	2.52	1	Recognition by manager Recognition by organisation Higher salary (5)	3	1.39	Higher salary (3) Recognition by manager (2) Recognition by organisation (2)
Survival	2.8	1.8	Vacation scheduling	2.78	1.33	Work scheduling Longer vacations Higher salary (2)
Work-life balance	2.57	1.79	Work scheduling (5)	2.68	1.32	No need to work overtime Work scheduling (3)

The nurses generated, on average, 11.6 stickers, with a mean value of 10 stickers, when picturing their dream work. At most, the participant produced 19 stickers and at least 6. The average number of stickers for the nurses who participated in the workshops was 13, with a mean of 15. The average for those who did not participate in the workshop was 7.5. The number of stickers indicated that participating in the interviews increased productivity and expanded participants' thinking. The data also showed that the length of spontaneous and open-ended discussions increased when the number of participants increased from three to five. For the participants, it was sometimes challenging to identify to which category a sticker should be assigned if it fits more than one category. The guideline was to assign it to the category that fits best and

make a green sticker for the other category. However, on some occasions, it was necessary to discuss how the participant had understood the category.

During the workshop, it was clear from the beginning which of the participants had reflected on the interview questions. Those who said they had could envision work more broadly (including non-work-related aspects) and in-depth (the level of detail in their answers). Those who had reflected on the questions also showed improvement in their ability to describe their work. For example, one nurse asked her colleague in the coffee room immediately after the interview, “Hey, what did you answer the last question?”. After that, they discussed the question for 5 minutes with others also participating in the discussion. The nurse who asked the question concluded the discussion by saying, “Gosh, I will probably think of that question still in the evening”. This nurse showed a clear improvement in productivity compared to the interview. She generated the third most amount of notes, even if her interview was the second shortest. Additionally, the action matrix indicated that the nurses who had participated in the interviews could think more critically and come up with creative solutions than those who had not participated.

There were apparent differences between the accommodation facilities. The difference in the amount of green and pink stickers was notable between the two units (Table 2, page 45): unit 1 produced two green stickers and 50 pink stickers with 5 participants. In contrast, unit 2 produced 20 green and 26 pink stickers with 3 participants. In both units, one participant had not participated in an interview. Most of the time, the green stickers reflected the things that the nurses lacked in their current work, and the pink stickers were things that already existed in the current work. The number of stickers did not yet tell how important that category was or how well current work satisfied that

category. That had to be analysed from the discussions and the trend of the average scores.

In both units, most stickers were found in the lower part of the motivation hexagon. In unit 1, 23 out of 52 stickers and in unit 2, 18 out of 49 stickers were found in the upper part. This outcome shows that for nurses, factors outside work are also important. On the other hand, the only stickers that got a full score for importance and satisfaction were found in the upper part, which means that the job resources better match the job-related demands than the personal. Both green stickers produced in unit 1 were found in the lower part of the motivation hexagon. In unit 2, 16 out of 20 green stickers were found in the lower part of the motivation hexagon, which shows a gap between the existing resources and demands that affect life outside work. One nurse said, "I wish I would have more energy with my kids".

The participant observations confirmed what the stickers indicated. The category that best matched the dream work was the work community, where the average score matched the dream work for five out of eight participants. An example of commitment to the work community was when a nurse described that one of the most horrible feelings is to be sick, knowing that all her colleagues are struggling with more work. Another said, "receiving help from the colleagues is the best resource that can reduce stress". The work community was also described as a place to talk about challenging clients. The nurses saw it as a place for defusing and expressing emotions freely. One said, "with your colleagues you can express how you feel. If you are happy you can show it and if you are pissed you can show it." In both units, some nurses said they would have already gone elsewhere if it were not for the work community.

In the action matrix, the nurses mentioned that to strengthen the work community further, the nurses said that there should be more shared activities and that well-being days should be kept according to plans. Other important aspects were that everybody does their share, helps others if they have time, that the manager is aware of the overall situation (work level) and that the manager requires the same level of input and quality of care from everyone. The nurses were strict that individual bonuses or privileges would deteriorate the work community. In addition, spontaneous thanks from the manager in the form of pizza evenings or something else could further improve group cohesion. Another thing that the nurses hoped for was a formal meeting where they could openly discuss clients and work-related matters. The nurses also thought it could improve employee satisfaction if the employer would take time to visit the accommodation facilities and be interested in what happens on the "grass root" level.

Recruitment was also considered crucial. The nurses hoped for competent coworkers whose personalities fit in the current work community. They said new candidates should have a test or acquaintance day, where the candidate and the work community could judge how well the candidate fits into the unit.

The category that matched the dream work second best was workflow. Six out of eight participants had a gap of one point lower than in their dream work. One participant had a P2 score of 0.5 lower and one 0.25 lower than P1, where the most outstanding issue was an insufficient amount of personnel. Another issue was the balance of client contact time and bureaucratic paperwork. The nurses acknowledged the importance of keeping a record of all the care procedures but thought the system could be smoother. One nurse also described in the interview that the bureaucratic work is increasing, and sometimes they

do not even know where the information is used. The equipment and facilities were considered appropriate in both units.

Leadership was also considered necessary for the flow of work. To lead the unit effectively, the nurses said that the superior should listen actively and have a situational picture of how work is progressing. The role of communication between the nurses, the nurses, and the superior was also emphasised. The nurses thought well-working routines and communication processes were central to a good workflow.

The nurses said recruitment should be intensified to cope with the lack of personnel. The employer should make it better known among nurses and keep recruitment open for substitutes. The amount of permanent personnel could also be increased. In addition, the employer should also keep a better record of the need for care versus the number of employees. The nurses at unit 2 described that a few clients had changed and that the new residents needed more care than the previous. However, no new nurses had been recruited.

Furthermore, monetary incentives (e.g. bonuses) could work better for the substitutes. One issue was that the substitutes usually do not want to apply for a medical license as the responsibilities and work amount only increase without monetary compensation. The nurses said this puts additional pressure on the permanent workers of the shift. Concerning the medical licenses, the nurses also thought it takes too long for new workers to get their organisational license even if they fulfil all the requirements. This production issue should be solved by applying for the license early enough and making the application process as smooth as possible.

Further, they mentioned that the superior should continuously search for substitutes and even sometimes participate in the work so that the nurses would not always have to show flexibility if someone is absent. Work schedules were also thought of as a factor that either could increase or decrease workload. That is why emphasis should be put on them.

A suggestion to decrease the bureaucratic load was to have electronic tags at the door of every apartment. The nurses would then show the tag when they enter and exit the rooms. A digital registration would decrease the time used for manual care registration and give more accurate data about care and contact times. It would be valuable for the organisation as they could better plan the number of nurses based on the need for care and bill the clients according to the exact time of care. The system would also be fair for those residents who pay based on the duration of care. The data would also give valuable feedback to the nurses on how much time they spend with the clients.

Consequently, an electronic registration system could also be connected to the database, where the care reports are written. The registrations would be pending once the nurse enters the computer and disappear once the report is ready. This solution would impact the quality of data and enable data analytics to become part of pricing and operational planning. Even if the nurses prefer tags, the registration could also be done with a phone application if tags are not possible.

The recruitment of substitutes could be improved by increasing the pool of available substitutes. Now the substitutes are nurses with direct contact with the accommodation facilities, and the managers have to call everyone separately to see if she or he is available. Instead, there should be a database where the substitutes could inform when they are unavailable and in which units they

are willing to work. The managers could then see all the nurses available to work in their unit from the system. This database could also include information about work contracts, medical licenses, education and work experience.

Self-expression generated the lowest amount of notes. Only one nurse produced more than two notes, and one did not produce a single one. One reason might be that the category was too abstract and thus difficult to grasp. The contrast can be seen in the interview data, where all interviewees mentioned that time spent with the clients and receiving thanks from them is the most rewarding part of the work. Further analysis shows that this satisfaction combines values, beliefs and expectations. According to the ISB, all nurses desire to help people and believe they are doing valuable work. The mechanism that triggers satisfaction is when they feel appreciation from others, with clients being the most important source of feedback. Spontaneous and open thanks from the superior were also appreciated, like those received from colleagues. Only one nurse thought that appreciation from family and friends was essential. At the organisational level, the thanks were expected to be received in monetary compensation, work benefits or something that could be used to strengthen the work community.

On the other hand, the workshop results showed that this category was one of the most influential categories for job satisfaction. Four out of eight participants in the workshop mentioned client contacts as necessary for self-expression. Two participants mentioned that performing well at work brings intellectual stimulation. One participant mentioned autonomy, and a second participant diversity as the critical element of self-expression.

On the contrary, this was also a category that generated stress for the nurses. Those who mentioned that client contacts are important also said that they spend too little time with the clients. In addition, they said that it caused stress to know that there were others in the queue and that one had to perform instead of being able to have a few words with the clients.

When looking at the lower half of the canvas, there were more significant differences between the two units. Unit 2 showed more exhaustion as many of the notes they produced ended up in the survival category. In unit 2, three participants produced six notes, while in unit 1, five participants produced only five stickers. At unit 2, the nurses hoped to get more rest between the shifts, while at unit 1, they wished they would have longer holidays. In unit 2, the nurses also saw the salary as a problem for survival, while in unit 1, the nurses thought that a salary increase would belong to external incentives. The only explanation found was the accommodation facilities' location and the living costs related to the location.

The salary demands were not unreasonable compared to the average wage in Finland. The discussed levels were 3000 euros in gross income and 2500 euros in net income per month. In both units, the nurses said it would be a good start to raise the salary to the level of the public sector. In unit 2, the salary demand was related to the amount of compensation. In contrast, nurses in unit 1 said that paying the shift compensation more frequently would increase the score for the external incentives. In unit 2, the nurses felt that it is a stress factor. One cannot be sure if the additional compensations are paid correctly, as the registration system includes all the payment categories. In unit 1, they hoped to receive their holiday compensation before their planned holiday. They also mentioned that the lack in salary could be compensated with other things such as a non-hectic workflow, longer-lasting holidays and community-building

activities. In addition, they discussed that benefits like massage or physiotherapy would improve their work satisfaction. Furthermore, one of the managers described that the nurses even despise personal bonuses unless they are related to more responsibilities at work. The nurses thought that all bonuses should be used collectively and that the substitutes should have access to the same monetary rewards as the permanent workers.

In unit 2, the nurses said that their free time is not enough at the moment for physical recovery. The exhaustion of nurses in unit 2 was reflected in hopes of getting rid of night shifts. In unit 1, night shifts were not considered an issue. However, they hoped shifts lasting from 3 pm to 11 pm would be removed. One solution to decreasing the physical load caused by shift work is having separate night nurses, which has been used successfully in some other places. Another resource is enough personnel, which allows more flexibility in work planning and decreases overtime work.

Work-life balance was highly dependent on the life situation of every individual. All P2 scores were below 2 in unit 2, while 30 per cent was above 2 in unit 1. In unit 2, all stickers in this category were green, while in unit 1, all were pink. In unit 1, the nurses' most central concern was spending leisure time with family and friends and planning free time activities. Generally, all consider flexible work schedule planning as the most crucial resource. Thus, all nurses hoped they would return to 6- week schedules to better plan their free time activities. Two out of five nurses even considered decreasing their work amount and giving up monetary compensations to increase work-life balance. One said that being more inflexible would improve work-life balance.

In unit 2, there was more of an imbalance between work and free time in unit 2 at the moment. Some nurses felt that overtime is a problem because it

interferes with the family, while others thought it was problematic because of recovery. In unit 2, everyone hoped that they would not have to work overtime and that an increased amount of personnel would improve work-life balance.

4 Findings

The aim of this qualitative case study has not been to draw general conclusions based on behavioural patterns but instead to understand, on a micro-level, factors affecting nurses' work motivation in assisted living facilities. In addition, the aim has been to get a more nuanced and deeper understanding of why nurses perceive some resources and demands as more crucial than others. The findings are summarised in Table 6 below, and the relationships are in Figure 2.

Table 6: Identified job resources and demands in the assisted living facilities

Job resource	Facilities Equipment Work community Clarity of work Autonomy & diversity Work scheduling Managerial flexibility
Personal resources	Professional competence Confidence Self-efficacy
Personal demands	Values Desire to help Social needs Work-life balance
Job demands	Shift work Bureaucracy Areas of responsibility

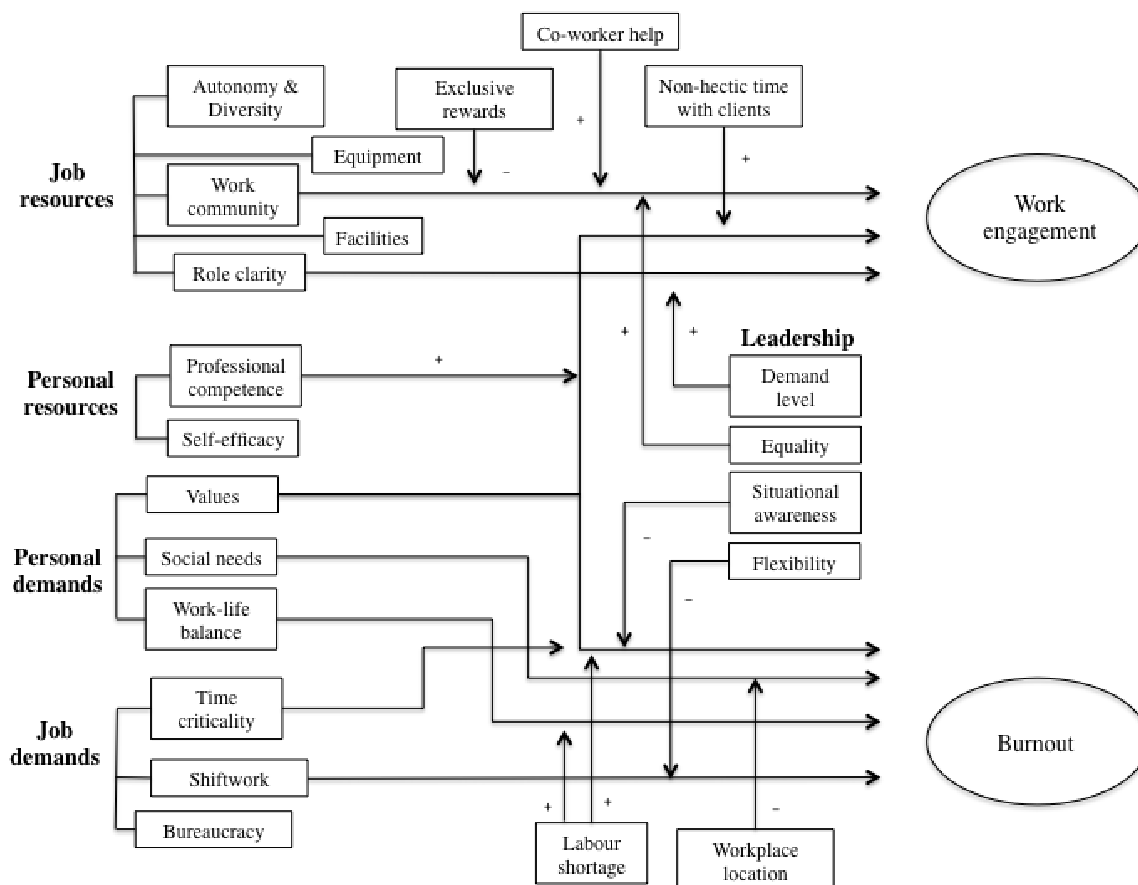

Figure 2: An illustrative map of the relations between job resources and demands and how they affect work engagement and burnout. The outcome of some of the job resources and demands found, remain unexplained in this study.

The data shows that values are the most important factor in how nurses perceive their work. The value of nurses is that they think that every life is valuable and that everyone deserves to be threatened with dignity and respect. This is also reflected as an expectation towards the profession. These values were found in the interviews where the nurses described what brings them joy and during the workshops when the nurses reflected on their need for self-expression. If this demand is met, it will increase work engagement, while

mechanical performing leads to burnout (see Figure 2). The nurses believe that every individual has the right to humane care and that they contribute to this value through their profession. The problems arise when the work becomes hectic or the workload becomes too large. In that case, the contact time decreases, and the work becomes a mechanical process instead of an individual consideration. Stressful situations typically occur when time-critical care is combined with a labour shortage.

Of the existing resources, the work community is the best resource to tackle labour shortages or unanticipated needs for care. It also contributes to work engagement through all three dimensions (see Figure 2). The most critical resources for upholding a strong work community are enough competent workers, good managerial leadership skills and good communication practices.

A strong work community increases the incentives to help if the nurses recognise that a colleague has many clients in a queue. Spontaneous help from colleagues strengthens the work community and increases the willingness to perform at one's best (see Figure 4). In addition, help from colleagues decreases stress and allows the nurses to spend more time with the clients. This leads to a positive spiral strengthening the group cohesion further. However, the collective effort requires that everyone does their share and helps each other. For this reason, professional competence is essential, as it enables the nurses to take on various tasks and decreases the need for help from others.

On the other hand, the work community can also be seen as a job demand as the collective sets the informal quality standards of the work. However, there were not any indications that this would lead to burnout in the studied setting, but it was more of an essential requirement for a well-working community. Nevertheless, it still sets some requirements on the level of professional

integrity to meet quality expectations. It also requires monitoring from the manager so that the work community does not become an iron cage (Barker, 1993).

Therefore, managers have an important role in setting formal standards in collaboration with the nurses and monitoring how they are fulfilled (see Figure 4). By setting common standards for the quality of work, the manager can ensure that the standards for care meet the nurse's quality expectations. Without common standards, it is difficult to ensure that everyone meets the values for good care and that everybody does their fair share. This requires awareness about the care status of the clients and courage to intervene in non-desired practices. Awareness of the care status and the overall workload allows the correct allocation of resources. It also helps to justify the need for more personnel. Awareness of the individual workload is again vital for scheduling work, as shift work was described as a job demand by the nurses. The nurses expect the manager to treat everybody equally in terms of requirements and flexibility.

Flexibility by the manager is essential to buffer the nurses' burnout as it buffers the demand for shift work (see Figure 4). Flexibility means listening and considering the nurses' wishes and the ability to modify signed work schedules. By being flexible, managers can ensure better recovery, but it also helps improve work-life balance, increasing work engagement. Mutually, the managers can expect flexibility from the nurses in situations of unexpected labour shortage.

To cope with the labour shortage, the focal organisation should focus on recruitment and ensuring enough competent temporary employees. The

temporary employees must be competent enough so that they do not add to the workload of the permanent employees.

Furthermore, it is essential to focus on employer branding to ensure successful recruitment. Many nurses said they did not know much about working with disabled people before entering their current work. They said they were surprised at how rewarding it is to work with clients. The care work is diverse as the client needs are different. Furthermore, the nurses have the freedom to do their work as they wish. The data also shows that in the studied setting, the nurses have the competencies needed to perform well in their work. The clarity of roles was also considered to be a positive factor. The nurses know the routine tasks at different times of the day, which decreases work-related stress.

A personal demand that was identified during the study was the need for recognition (see Figure 4). The need for recognition can roughly be divided into three levels: recognition by the clients, recognition by the manager and recognition by the organisation. Recognition expected by the clients is orally expressed gratitude and thanks. In contrast, the manager is expected to collectively reward the work community and praise openly for flexibility or a good contribution. On the organisation level, recognition is expected to come in the form of external incentives. However, the nurses also expressed that they would like frequent communication with the organisation's representatives. The nurses also felt that the organisation should put effort into understanding their daily job. The collective before the individual is also reflected in how the nurses look at individual incentives. Personal bonuses were considered discriminatory unless connected to personal responsibilities. Even if personal bonuses can work as an external incentive for the individual, they risk affecting the work community negatively if given for a reason that is not accepted by the collective.

Furthermore, the current salary is considered in both units to be low compared to the demands of the work and how vital the work is. However, this is fine if it is enough to cover living costs. There is a difference between the units that the location could explain. In the unit situated outside the capital region, the salary is not a question of survival, while in the capital region, the salary affects social needs (see Figure 3). In the capital region, the salary is considered insufficient for everyday living. Even if the capital region has a different salary table, more is needed to compensate for living costs. In cases where the salary is enough to cover living costs, the person can choose how to use it according to his or her priorities. The situation is often involuntary as there might be considerable barriers to moving to another locality, like friends, family, and hobbies.

Shift work and having to work overtime were the two factors affecting work-life balance most. While shift work is accepted and can be buffered by flexible scheduling (see Figure 4), the effect of overtime is highly dependent on the life situation. All nurses said that they value life outside work and do not consider work an extension of one's non-professional interests. The nurses who felt exhausted thought that having to work overtime affected their work-life balance negatively (see Figure 4). The same applies to those with family. Those who did not have children and who felt recovered thought overtime to be a means to increase earnings. However, they felt that it was demotivating to compensate for overtime with extra leave.

5 Discussion

For a theory to be complete in natural sciences, every element should have a corresponding measurable outcome. However, this is only sometimes the case in social sciences, as every theory is an illustration of an observed social phenomenon. This research showed that nurses are professionals who do not necessarily have to be motivated. Instead, they are professionals who know why they are doing their work and therefore their motivation is best supported by providing sufficient resources so that they can do their work in accordance with their values. In this sense, the JD-R model suits well nursing studies as it perceives work motivation as an outcome of buffered job demands and sufficient job resources, rather than a prerequisite.

Therefore, it is crucial to be careful when making assumptions. In natural sciences, nature does not care if a theory is right or wrong. However, in social sciences, assumptions affect how we see the world and can thus influence the outcomes. Even if qualitative studies are essential for enlightening and understanding large behavioural patterns, their assumptions affect outcomes. In the worst case, theories can become self-fulfilling prophecies (Battilana et al., 2022). For example, agency theory has changed how we think about work: organisations are an arrangement of formal contracts between self-interested individuals (Koford & Penno, 1992). Qualitative studies have the advantage that they can be adjusted based on observations. In qualitative studies, it is difficult to look at what happens outside the road once the hypotheses are made.

Qualitative studies have often been seen as the opposite or a preliminary assessment of quantitative studies (Charmaz, 2014; Locke, 1969). Instead, the findings show that they can support each other to create a better picture of observed organisational phenomena.

5.1 Theoretical contribution

In terms of theoretical contribution, the research showed promising results. Even if the JD-R framework has sometimes been criticised for being context-dependent and too broad, it proved, in this case, to have good explanatory power. By identifying expectations related to values, the research has been able to explain why nurses feel stress under time criticality. Furthermore, the research also explains why previous studies have not identified the value dimension. The reason is that they have focused on job-related and not on personal features. Measuring personal features can always be difficult and generate varying results.

However, in this research, personal values were a personal demand that was a common factor for every participant. It is important to note that this personal demand can either promote work engagement or lead to burnout, depending on the circumstances. The finding also extends the discussion of Garrosa and her colleagues (2011), who say that nurses want their job to be meaningful. According to this study, the actualisation of values is one component that makes nursing meaningful.

Further, it was encouraging to see that the research was able to find similar job demands and job resources with qualitative methods that also have been found in previous research. Statistical correlations remain unknown in this case, but it is a question of how well motivation can be quantified - understanding how and what the nurses talk about their job is equally important. Finally, it was a slight surprise that the physical demands were not seen as a significant burnout factor compared to shiftwork, even if the work included

physical dimensions. One explanation could be that the participants had an average age below 50 and were physically fit.

Moreover, the research was able to identify resources that also have been identified by previous studies. However, how autonomy, diversity, equipment, facilities and self-efficacy contribute to work engagement or burnout remains unclear. This leads to the conclusion that these are basic requirements or expectations and that their lack would lead to burnout. The only personal resource which had a moderating effect was professional competence.

5.2 Managerial interventions

Leiter and Maslach (2010, p. 168) say that managerial interventions begin by "changing the employees' experience of worklife". But, in the best case, the consequences go beyond that. On an individual level, the focus should be on how employees experience their work, while on an organisational level, the focus should be on changing the work conditions that would have a downstream impact. The focus should be on creating environments where work engagement is promoted and the risk of burnout decreased. (Bakker & Leiter, 2010

However, the greatest challenge for all healthcare organisations is a chronic labour shortage. It also easily leads to increased workload, mechanical work that collides with values, and overtime for permanent workers. These challenges have already been proven to lead to burnout and turnover intentions. Furthermore, reasons for shortages vary between units, which is why the problems must be tackled separately.

For organisations, it is essential to ensure enough access to competent labour while at the same time reducing turnover intentions. This happens mainly by

taking care of the existing personnel and successful employer branding. The employer branding should primarily focus on nurse students yet to enter work life. Another practical piece of advice is to ensure a large enough network of competent temporary workers to compensate when someone is absent. It is central to ensure that the pool of temporary workers is large enough to improve the availability of temporary workers.

Thus far, interventions have focused much on how to make work more efficient or how human labour can be replaced. The problem can also be turned around to look at how technology can be used to increase work engagement. Health care organisations should focus on making bureaucratic processes as smooth as possible and automating administrative work as much as possible so that the nurses can focus on the tasks that they like to do. In this process right designed digital tools could be helpful. For example, RFID or QR-code based care-event registration that goes directly to a database would increase contact time, make time tracking more accurate and decrease stress during hectic moments. Furthermore, AI based care categorization and recognition could be used to help to fill in the documents that nurses have to write after every care event. These types of small time savings have the potential to add up to large sums in larger units, but most importantly, they would free attention and cognitive capacity that is important for being mentally present during care events.

When it comes to incentives, it is important to recognise those that do the care work. The organisations should focus on how they can reward the collective, strengthening the work community further. The superiors who are in daily contact with the nurses should emphasise fairness and equality when giving recognition. Instead of competing with salary, organisations should commit

their personnel by focusing on non-monetary benefits that ensures better prerequisites for the nurses to succeed and cope in their work.

5.3 Limitations and future research

The results are difficult to generalise as the sample is small and the studied organisations operate in a specialised nursing field. At its best, the research provides only a snapshot of how nurses perceive their work but offers little light on things acting in the background. For instance, the research indicates that cultural background could affect the outcomes, but more research is needed. For this purpose, longitudinal studies would certainly improve our understanding.

Further, qualitative studies have a downside in that interpretation of the data depends on how well the researcher can identify causes and consequences from theory. Moreover, the information the participants share during interviews and in observational situations depends on how much they trust the interviewer or the observer. The best way to validate qualitative research would be to follow up with a quantitative study where correlations between job characteristics and outcomes would be assessed.

I still encourage scholars to do qualitative research to get new ideas and personal insight into practical work. It is important to explore new possibilities that have not been studied before to make successful contributions to the research of job demands and job resources. This happens mainly through qualitative studies. For this purpose, qualitative studies are irreplaceable – first, you have to know what to study. Otherwise, research will only repeat itself, and new findings remain unidentified. It is also difficult to imagine how work could be redesigned without qualitative insights. Even if workshops are a

time-consuming research method, they provide an excellent window for participant observations, with reasonably light arrangements.

In JD-R studies, the dominant focus has been on job demands and burnout. However, there is still much space to expand research in the field of job resources and motivational outcomes in nursing. Furthermore, the framework would be more complete if it included personal demands in the future. The problem is still how these demands should be measured quantitatively. I acknowledge that it would make the model more complicated, but it would, at the same time, increase its explanatory power.

Finally, I encourage Finnish organisational scholars to use the JD-R framework more boldly, especially in healthcare studies. It is not a coincidence that there are innovative healthcare organisations in the Netherlands, as they seem to have a strong culture in this field of organisational research.

On a practical level, I propose that practitioners should not focus only on how to automate health care. A fact is that everything cannot be done remotely and some aspects of high-quality care are difficult to automate. As this research has shown, engagement is closely linked to how well the nurses are able to give high-quality care. That is why I hope that practitioners would focus on developing digital tools that could be used to support the healthcare personnel in their work so that they could focus on the most essential – taking care of other humans.

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Appendix 1 – Interview questions

Työmotivaatio työpajan esihaastattelulomake

Haastateltavan nimi:

1. Kuvaile työtäsi? Voit avata joko yleisellä tasolla tai yksittäisten tehtävien kautta. (Miten henkilö itse näkee työnsä. Laajana kokonaisuutena, yksittäisinä suoritteina tai molempia?)

2. Voitko kertoa mikä tekee sinut iloiseksi tai onnelliseksi työssäsi? (Sisäinen motivaatio. Saadaan vertailuamateriaalia, nousevatko samat teemat esille työpajan aikana.)

3. Voitko kuvailla työyksikköä ja -yhteisöäsi? (Tärkeä ymmärtää työyksikköä ja ryhmäkiinteyttä.)

4. Mitkä asiat toimivat hyvin työssäsi? (Työtä tukevat/helpottavat/mahdollistavat tekijät)

5. Voitko kuvailla mitkä asiat tekisivät työstäsi vielä sujuvamman? (Työntekoa tai sujuvuutta haittaavat/häiritsevät tekijät)

6. Voitko kuvata mikä mielestäsi mistä tekijöistä hyvä johtaminen rakentuu? (Henkilön subjektiivinen kuva hyvästä johtamisesta.)

7. Miten lottovoitto muuttaisi suhtautumistasi nykyiseen työhön? (Noudattaa aikaisempia työmotivaatiotutkimuksia: Morse & Weiss, 1955; Vecchio, 1980; Avrey et al., 2004; Highhouse et al. 2010)

Appendix 2 – Motivation hexagon

Osallistujanumero:

Itseilmaisu
P1: : =
P2: : =

Työn sujuvuus
P1: : =
P2: : =

Työyhteisö
P1: : =
P2: : =

Arjen sujuvuus
P1: : =
P2: : =

Ulkoiset kannustimet
P1: : =
P2: : =

Selviytyminen
P1: : =
P2: : =

Osallistuin esihaastatteluun: Kyllä / Ei

Appendix 3 – Action matrix

		Itse	Esihenkilö	Organisaatio
Työn sujuvuus	P1: P2:			
Itseilm.	P1: P2:			
Työyht.	P1: P2:			
Arvostus	P1: P2:			
Selviyt.	P1: P2:			
Arjen sujuvuus	P1: P2:			

Appendix 4 – Incomplete sentence blank

Osallistujanumero: _________

Tämän tehtävän tarkoitus on avata ajatuksia, jotka liittyvät työhön ja sitä kautta valmistaa sinut teemoihin, joita työpajassa tullaan käsittelemään. Vastaukset ovat ensisijaisesti sinua varten. Anonymiteetin varmistamiseksi olen antanut sinulle oman koodin, joka näkyy paperin yläreunassa. Tämä on sinun henkilökohtainen koodisi läpi työpajan.

Täydennä aloitetut lauseet (yksi sana tai pitempi lause) selkeällä käsialalla ja tuo paperi mukaan työpajaan. Voit hyödyntää vastauksia tulevissa tehtävissä.

Parasta työssäni

____

____

Tavoitteeni ovat

____

____

Työkaverit

____

____

Välillä toivoisin

____

____

Työtäni helpottaa

____

____

KÄÄNNÄ PAPERI

Esihenkilöni

Hakeuduin hoitoalalle

____

____

Vahvuuteni ovat

____

____

Koen, että työni

____

____

Työyhteisö on

____

____

Koen stressaavana

____

____

Työntekijänä haluan

____

____