University of
South-Eastern Norway

Hilde Hovda Midje

Engagement in health and health in engagement

Examining the antecedents and outcomes of work engagement among nursing home staff

Dissertation for the degree of PhD
Person-centred Health Care

Faculty of Health and Social Sciences

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South-Eastern Norway

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'Make things as simple as possible, but not simpler' (Albert Einstein)

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Abstract

Background: An organisational imperative in healthcare worldwide, but especially in the West, is how to meet the needs of an elderly cohort, which rapidly increases in both population proportion and absolute numbers. In line with these projections comes an increased need for nursing homes offering long-term healthcare services to older people. Increased demand for long-term eldercare services means increased needs for qualified staff. However, concomitant with a growing ageing population is a decrease in the working-age cohorts from which are drawn healthcare workers. At the same time, governments and healthcare systems expect staff and organisations to provide person-centred care of high quality. Thus, globally, healthcare systems are under utmost pressure.

Ensuring the provision of high-quality healthcare services for the future requires targeted short- and long-term approaches aimed at building the workforce capacity and the organisation and finances of the healthcare system. Healthcare workers' well-being and functioning affect the quality of the services, both directly and indirectly. To provide person-centred care, employees must be attentive and sympathetically present, able to engage authentically, and committed to their job. Motivated and healthy employees are more likely to be productive workers, leading to an efficient and successful enterprise. In healthcare, work engagement is found to be associated with increased employee well-being, work effectiveness and work productivity, reduced employee turnover intentions, higher career and job satisfaction, and improved quality of care and user satisfaction. Increasing employees' work engagement thus represents a promising opportunity for nursing homes aiming for providing high-quality person-centred services. However, the research evidence on the working environment conditions that boost work engagement in the nursing home setting is sparse and ambiguous.

Aim: The main aim of this thesis was to gain in-depth knowledge about the antecedents and outcomes of work engagement among nursing staff (healthcare assistants, licensed practical nurses, and registered nurses) working in nursing homes. Of special interest was examining the role of work engagement in the development of person-centred processes.

Materials and methods: The aims of this thesis were addressed through a qualitative study (Study I), a quantitative study (Study II), and a systematic review (Study III).

Study I was a qualitative semi-structured interview study with an explorative descriptive design. It involved digital interviews with sixteen nursing home staff: eight registered nurses, five licensed practical nurses, and three nursing assistants. The study examined the nursing staff's experiences with work engagement as a motivational state and investigated its environmental antecedents. Moreover, the study examined the association between work

engagement and the development of person-centred processes. The Stepwise-Deductive-Inductive (SDI) approach was used to analyse data.

Study II was a quantitative study with an analytical observational and cross-sectional design. Data from 128 nursing home staff was collected in paper-based questionnaires. Two multivariable regression models – one testing the mediation effect and another testing the moderation effect – were used to examine the role of work engagement in the relationship between job resources and demands on the one hand and person-centred processes on the other.

Study III was a systematic review. The study was carried out to synthesise available data from empirical studies examining work engagement among nursing home staff, using the systematic review methodology described by PRISMA. Due to the great diversity in the antecedents and outcomes of work engagement measured, a meta-analysis of effect estimates was not feasible.

Main results: The interview study showed that various conditions in the working environment play a role in increasing nursing home staff's work engagement. Examples are job feedback, support from colleagues and managers, meaningful work, opportunities for learning and development, and having engaged colleagues. Moreover, the interview study showed that elevated physical, cognitive, and mental capacity from work engagement can play a role in developing person-centred processes.

The questionnaire study showed that job autonomy, meaningful work, development opportunities, and supportive relationships between colleagues are relevant antecedents of nursing home staff's work engagement. The study showed, however, no positive association between work engagement and person-centred processes.

The review study showed that the most investigated antecedents and outcomes of work engagement among nursing staff exclusively working in nursing homes are, respectively, 1) social support and learning and development opportunities, and 2) person-centred processes. However, the study revealed that the evidence base regarding antecedents and outcomes of work engagement in this working context is ambiguous and sparse and thus does not provide a basis for drawing firm conclusions.

Conclusion: Based on the findings of the three included studies, this thesis emphasises the importance of facilitating the development of working environments that protect and promote the health and well-being of healthcare workers. The findings show that there is an association between, on the one hand, personal, organisational, and psychosocial working environment resources of nursing home staff and, on the other, work engagement and person-centred processes. The findings here suggest as well, albeit ambiguously, that work engagement can facilitate person-centred processes. These results can help orient further

research on the antecedents and outcomes of work engagement among nursing staff exclusively working in nursing homes. Thus, the findings of this thesis are relevant to meeting the challenges of an ageing population and developing high-quality long-term eldercare services.

Keywords: work engagement, working environment, Job Demands-Resources model, person-centred care, person-centred processes, long-term care, nursing homes, nursing staff

Sammendrag

Bakgrunn: En utfordring for helsevesenet over hele verden, men spesielt i vestlige samfunn, er hvordan imøtekomme behovene til en raskt økende andel eldre i befolkningen. Som en konsekvens av disse demografiske prognosene, tiltar behovet for langtids helse- og omsorgstjenester til eldre mennesker. En økt etterspørsel etter tjenester innen eldreomsorgen medfører også et økt behov for kvalifisert personale. Utviklingen med en aldrende befolkning følges imidlertid av en betydelig nedgang i tilgjengelig helsepersonell. Samtidig forventes det at ansatte og virksomheter skal tilby personorienterte helse- og omsorgstjenester av høy kvalitet. Samlet sett setter dette helsevesenet, og spesielt eldreomsorgen, under et betydelig press.

Å sikre en fremtidig utvikling av helsetjenester med høy kvalitet krever både kortsiktige og langsiktige tiltak. Blant annet må det jobbes målrettet mot å øke tilgangen på kvalifisert personell, samt forbedre organiseringen og økonomien innen helsevesenet. For å yte personorienterte tjenester, må de ansatte være årvåkne, sympatisk til stede, engasjerte og innstilt på å gjøre en god jobb. Hvordan helsepersonell trivsel og fungerer i jobben påvirker derfor kvaliteten på tjenestene, både direkte og indirekte. Motiverte ansatte er mer effektive i arbeidet, noe som igjen bidrar til bedre og mer velfungerende tjenester. Jobbengasjement blant helsepersonell henger sammen med økt trivsel, motivasjon og effektivitet, reduserte hensikter om å slutte i jobben, høyere karriere- og jobbtilfredshet, forbedret kvalitet på helsetjenester og økt brukertilfredshet. Å fremme jobbengasjement blant ansatte i eldreomsorgen er derfor relevant med tanke på å nå målet om og tilby personorienterte tjenester av høy kvalitet. Det finnes imidlertid lite forskning på hvilke arbeidsmiljøbetingelser i sykehjem og omsorgsboliger som fremmer ansattes jobbengasjement. Forskningen som finnes, er i tillegg mangelfull og tvetydig.

Mål: Dette ph.d. prosjektet har hatt som mål å utvikle kunnskap om hvilke personlige og arbeidsmiljømessige forhold som fremmer jobbengasjement blant pleiemedhjelpere, helsefagarbeidere og sykepleiere som jobber i kommunale sykehjem og omsorgsboliger. Videre var målet å undersøke positive utfall av jobbengasjement blant ansatte i denne settingen. Prosjektet fokuserte spesielt på jobbengasjements betydning for de ansattes mulighet til å utvikle personorienterte tjenester.

Materiale og metoder: Ph.d. prosjektets mål ble adressert ved hjelp av en intervjustudie (Studie I), en spørreskjemaundersøkelse (Studie II) og en systematisk kunnskapsoversikt (Studie III).

Studie I var en semistrukturert intervjustudie med et utforskende og beskrivende design. Studien baserte seg på kvalitative data fra digitale intervju med seksten ansatte i sykehjem og omsorgsboliger, det vil si åtte sykepleiere (tre avdelingsledere), fem helsefagarbeidere og

tre pleiemedhjelpere. Studien undersøkte helsepersonellets erfaringer med jobbengasjement, samt hvilke forhold i arbeidsmiljøet som fremmet jobbengasjement. Videre undersøkte studien sammenhengen mellom jobbengasjement og utviklingen av personorienterte prosesser i møter med beboerne. Stegvis deduktiv-induktiv (SDI) metode ble brukt til å analysere data.

Studie II var en tverrsnittsstudie basert på kvantitative data fra spørreskjema besvart av 128 ansatte i sykehjem. Studien undersøkte hvilke forhold i arbeidsmiljøet som kan stimulere ansattes jobbengasjement og personorienterte prosesser. Videre undersøkte studien om jobbengasjement medierer eller modererer effekten av jobbressurser på personorienterte prosesser.

Studie III var en systematisk litteraturgjennomgang basert på retningslinjene i PRISMA. Studien syntetiserte data fra empiriske studier som undersøkte forutsetninger for og utfall av jobbengasjement blant helsepersonell i sykehjem og omsorgsboliger. På grunn av relativt få studier og et stort sprik i de inkluderte variablene, var det ikke mulig å gjennomføre en metaanalyse av effektestimater.

Resultater: Intervjustudien viste at det er ulike forhold i arbeidsmiljøet som stimulerer til jobbengasjement, eksempelvis tilbakemeldinger på jobben man gjør, støtte fra kollegaer og ledere, muligheter for læring og utvikling, meningsfulle arbeidsoppgaver og å ha kollegaer som er engasjerte i jobben sin. Intervjustudien viste også at den økte fysiske, kognitive, og mentale kapasiteten som medfølger av jobbengasjement kan spille positivt inn på utviklingen av personorienterte prosesser.

Spørreskjemastudien viste at jobbautonomi, meningsfullt arbeid, utviklingsmuligheter og sosial støtte er arbeidsmiljøforhold som stimulerer til jobbengasjement og personorienterte prosesser bland helsepersonell i sykehjem og omsorgsboliger. Denne studien fant imidlertid ingen sammenheng mellom jobbengasjement og personorienterte prosesser.

Den systematiske kunnskapsoversikten viste at arbeidsmiljøforholdene som er mest forsket på som forløpere til jobbengasjement blant ansatte i sykehjem og omsorgsboliger er sosial støtte og muligheter for læring og utvikling. Utfall av jobbengasjement som er mest forsket på i denne settingen er personorienterte prosesser. Et hovedfunn fra studien er at forskningen som foreligger på jobbengasjement blant helsepersonell i sykehjem og omsorgsboliger er for sparsom og tvetydig til å trekke noen sikre konklusjoner. Studien viser derfor at det er behov for mer forskning i akkurat denne settingen.

Konklusjon: Denne avhandlingen belyser og understreker betydningen av å utvikle arbeidsmiljøer som beskytter og fremmer jobbrelatert velvære og motivasjon til helsepersonell som jobber i sykehjem og omsorgsboliger. Avhandlingens funn viser at ansattes jobbengasjement og personorienterte prosesser er forbundet med en rekke

personlige egenskaper og organisatoriske og psykososiale arbeidsmiljøforhold. Selv om resultatene av de inkluderte studiene er noe tvetydige, indikerer de at jobbengasjement kan spille en rolle i utviklingen av personorienterte prosesser i pleiesituasjoner. Avhandlingen viser imidlertid også at for å kunne si noe mer sikkert om dette, er det behov for mer forskning på jobbengasjement blant pleiemedhjelpere, helsefagarbeidere og sykepleiere som jobber i sykehjem og omsorgsboliger. For å kunne møte utfordringene som medfølger en aldrende befolkning og utvikle personorienterte helsetjenester av høy kvalitet, kan funnene fra denne avhandlingen brukes som et utgangspunkt for videre kunnskapsutvikling.

Nøkkelord: jobbengasjement, arbeidsmiljø, Jobbkrav-Ressurs modellen, personorientert pleie, personorienterte prosesser, eldreomsorg, sykehjem, helsepersonell

List of papers

Paper I – 'the interview study'
Midje, H. H., Øvergård, K. I., & Torp, S. (2021). Exploring work engagement in the context of person-centred practices: A qualitative study in municipal long-term care facilities for older people. *International Practice Development Journal*, 11(2), 1-17.
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https://doi.org/10.1111/jan.15804

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Selected abbreviations

JD-R	Job Demands-Resources
LTC	Long-Term Care
PCP	Person-Centred Processes
SDI	Stepwise-Inductive-Deductive
UWES	Utrecht Work Engagement Scale
WE	Work Engagement

Table of contents

1 INTRODUCTION

The introduction chapter briefly describes the rationale for conducting the research presented in this thesis. In addition, the chapter outlines the scientific tradition and research field in which this PhD project is situated.

1.1 Setting the scene

People are the engine of work organisations and form their foundation. It follows that employee well-being is of great importance to the employees, their work organisations, and their clients (Løvseth & De Lange, 2020). This is reflected in the Norwegian Work Environment Act, one of whose main objectives is to '... *ensure a health promoting and meaningful work environment for every employee*.' (Johansen & Pettersen, 2023, p. 18).

Employees' motivation and well-being are essential to converting human capital into effective functioning at work (Knardahl, 2020). As a consultant in the occupational health service and a physiotherapist with a Master's degree in Health Promotion, I have reflected on which conditions in the working environment contribute to well-being and health, motivate employees to give their best, persevere when faced with difficulties, and perform at a high standard in work. Particularly, I am interested in work engagement (WE) because it refers to a positive affective-motivational state associated with improved employee health and job performance, effectiveness, and satisfaction (Bailey et al., 2017; Bakker, Demerouti, & Sanz Vergel, 2014).

This thesis contributes to fulfilling the purpose of a PhD programme in Person-centred Health Care, which is to *'… educate for research aiming at producing new knowledge to develop and support person-centred healthcare practice, including health promotive, bio-medical, organisational, and political preconditions for such practices.'* (University of South-Eastern Norway, 2023). High-quality healthcare services are characterised by being safe, timely, effective, equitable, efficient, and tailored to individual needs and preferences (WHO, 2015). The demands for person-centred services – characterised by healthy relationships, mutual respect, involvement in decision-making, individualization, and empowerment – have grown in recent years (Edgar et al., 2020; WHO, 2015). Fundamental to achieving this is attentiveness towards the quality of personal interactions – among healthcare workers themselves and those who receive care. Employees' functioning and well-being affect the quality of healthcare services, both directly and indirectly (Løvseth & De Lange, 2020).

1.2 Global challenges in healthcare

Healthcare services include the prevention of disease, the promotion of health, diagnostics and treatment, rehabilitation, and palliative care for people of all ages and at all levels of service provision (WHO, 2021b, 2022b). In the global labour market, healthcare workers represent one of the largest groups of employees. In Europe, they make up ten percent of the total workforce (Løvseth & De Lange, 2020).

According to the World Health Organisation (WHO), all European countries face significant challenges with the healthcare workforce (WHO, 2022b). In the period 2015 to 2050, the proportion of the world's population aged over 60 will increase from 12 to 22 percent (WHO, 2022a). Within the European Union, the proportion of people aged over 65 is expected to grow by 70 percent and those aged over 80 by 170 percent by 2050 (European Union, 2007; WHO, 2022a). In line with these projections, the demand for residential facilities offering long-term care (LTC) is set to rise, driven by the proportion of individuals with chronic conditions and functional disabilities (WHO, 2022b).

Increased demand for LTC services for older people brings about increased needs for qualified personnel. However, by 2050, for the first time in history, those aged over 60 are expected to outnumber those under 15 (WHO, 2022a). Moreover, the ageing of the healthcare workforce is a concern and imposes a strong requirement to replace workers when they retire (WHO, 2022b). Thus, in several parts of the world – for example in Eastern Europe and Central Asia – the trend of ageing populations is followed by a considerable decline in registered nurses and other types of healthcare workers (WHO, 2022b).

Overall, the healthcare system is under utmost pressure due to an increasing cohort of older people with a need for LTC services, an insufficient healthcare labour force, poor retention of workers and high turnover, unattractive working and employment conditions, enhanced public expectations, and an intensified pressure to improve cost-effectiveness of the services (WHO, 2020, 2022b). Tackling this reality, countries around the world are striving to develop sustainable healthcare services that enable resource-efficient delivery of person-centred care by motivated, competent, and sufficient employees (WHO, 2022b). Research in the healthcare system has shown that WE is associated with increased employee well-being, work effectiveness and work productivity, higher job and career satisfaction, reduced employee turnover intentions, and improved quality of care and user satisfaction (Keyko et al., 2016). Promoting employee well-being through increasing WE thus represents a promising opportunity for healthcare organisations.

1.3 Promoting employee well-being

According to WHO (2021a), the role of health promotion is to facilitate the development of well-being societies at all levels based on activities within five action areas. These areas consider all domains related to health and health inequities; ecological, commercial, political, social, and digital. The fourth action area – to achieve universal health coverage – specifically calls for sustained investment in actions to develop primary care and nurture and protect healthcare workers (WHO, 2021a). Primary care services refer to the fundamental first-contact care provided for all citizens in a community setting, such as in nursing homes. Rather than being disease-centred, primary care services should be person-centred and concerned with peoples' holistic health needs and well-being at all stages in life (WHO, 2021b).

Health promotion is a process or way of working focused on health, not disease or illness (Wills, 2023). It revolves around a positive and holistic vision of health that includes physical, mental, and social well-being and functioning (Green et al., 2019; WHO, 1986, 2021a). Well-being is described as a positive state and a resource for everyday life that is experienced at both individual and group levels, e.g., in communities and workplaces. It is both about functioning well and feeling good (WHO, 2021b).

Health promotion is cross-professional in nature with academic roots in a variety of disciplines, such as education, psychology, sociology, and epidemiology (Green et al., 2019). It is a whole-system approach which, from a socio-ecological perspective, makes links between environmental settings – contexts where people interact and live their lives – and behaviour (Dooris et al., 2022; Woodall & Cross, 2021). Health promotion aims at developing the conditions for good health by increasing people's and local communities' control over the economic, environmental, social, and personal determinants of health (WHO, 1986, 2021a). This requires coordinated actions from the state, local authorities, economic, health, and social sectors, industries, the media, and non-governmental organisations (NGOs) (Wills, 2023).

WHO (1998) considers the workplace to be a priority setting for health promotion. Using the settings approach to health promotion, the workplace is recognised as a complex cultural and social environment that can enhance or impair employees' well-being and health (Green et al., 2019; Kuhn & Chu, 2022). WE is recognised as highly relevant to workplace health promotion, given this state's strong relation with working environment conditions and because of its several positive outcomes across individual and organisational levels (Bailey et al., 2017; Torp et al., 2013). Thus, healthcare organisations can strive towards increasing employee WE by providing structures for targeted and ongoing comprehensive practical health-promoting approaches.

1.4 Filling a research gap in work engagement

The Job Demands-Resources (JD-R) model (Bakker & Demerouti, 2008) is a highly recognised occupational stress model that has been widely applied. Over the past two decades, a significant body of research has investigated WE based on the JD-R model among diverse occupations demonstrating that the working environment conditions that have the greatest impact on WE typically vary between professional groups and work settings (Bailey et al., 2017; Bakker, Demerouti, & Sanz Vergel, 2014). Nevertheless, research shows that the outcomes of WE generally are less examined than the antecedents, and that studies on organisational and patient-related outcomes is particularly needed (Broetje et al., 2020; Keyko et al., 2016). Given nursing staff's significant role in delivering high-quality healthcare services, acquiring a comprehensive understanding of the potential of enhancing WE in all areas of practice where these services are provided seems relevant.

The current state of knowledge about the association among the working environment, WE, and desirable outcomes in the healthcare system is mainly based on research among registered nurses employed in hospitals. Examples comprise studies included in a systematic review by Keyko et al. (2016), an integrative review by García-Sierra et al. (2016), and an integrative review of reviews by Broetje et al. (2020). Regarding residential LTC facilities, there is a significant knowledge gap about developing working environments that effectively build workforce capacity and accelerate high-quality healthcare services by enhancing employee's WE (Midje et al., 2024). For example, until this PhD project was initiated, only one study had examined person-centred care as an outcome of WE among nursing staff working exclusively in nursing homes. In that nested cross-sectional study, nurses' WE mediated the association between the service climate in the working unit and the employees' person-centred care behaviours (Abdelhadi & Drach-Zahavy, 2012).

Although hospitals and residential LTC facilities share some characteristic working environment conditions, there are differences in, e.g., interdisciplinary work, expectations from and relationship-building with those receiving the services, development and continuity of care needs, and physical demands in the working environment (Pennestrì et al., 2022; Tummers et al., 2013). Consequently, to promote the efficiency and quality of the provided care while also attending to the health and well-being of nursing staff, more knowledge about the meaning and importance of WE in residential LTC facilities is needed (WHO, 2022b).

Based on the described challenges in healthcare, the knowledge gap about WE, and the recommendations from the WHO (2022b), this PhD project contributes to research on measures to protect and nurture the well-being of nursing staff and promote person-centred practices in the primary care services.

2 AIMS AND STUDIES

2.1 The thesis' aims

The overarching aim of this PhD project was to gain in-depth knowledge about WE among nursing staff working in nursing homes. To fulfil this aim, the following secondary research objectives were developed:

1. To investigate experiences with work engagement and person-centred processes
2. To examine the antecedents of work engagement
3. To examine person-centred processes as an outcome of work engagement
4. To provide a state-of-the-art overview of current knowledge on the antecedents and outcomes of work engagement

2.2 The scientific papers

Paper I – 'the interview study':
Midje, H. H., Øvergård, K. I., & Torp, S. (2021). Exploring work engagement in the context of person-centred practices: A qualitative study in municipal long-term care facilities for older people. *International Practice Development Journal*, 11(2), 1-17. https://doi.org/10.19043/ipdj.112.006

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The titles of the scientific papers indicate how the different studies covered the topics presented in the list of secondary research objectives. This connection is visualised in Table 1.

Table 1 Connection between secondary research objectives and studies

	Study I	Study II	Study III
Secondary objective 1: To investigate experiences with work engagement and person-centred processes	X		
Secondary objective 2: To examine the antecedents of work engagement	X	X	
Secondary objective 3: To examine person-centred processes as an outcome of work engagement	X	X	X
Secondary objective 4: To provide a state-of-the-art overview of current knowledge on the antecedents and outcomes of work engagement			X

3 BACKGROUND

This background chapter explores further the thesis problem area – sustaining a competent, sufficient, and engaged workforce for provision of person-centred long-term eldercare – and presents a deeper rationale for this research. First is discussed the context of healthcare in Norway, from which the empirical evidence in the first two studies originates, even while the overall research findings are considered relevant for healthcare organisations across countries in different parts of the world.

3.1 The Norwegian healthcare system

3.1.1 Organisation

Organisation and types of services

Norway is a high-income country with around 5,5 million inhabitants. Life expectancy is among the highest in Europe (in 2023, just over 83 years), as is the proportion of the workforce engaged in healthcare (registered nurses, midwifes, and medical doctors) (Saunes et al., 2020; Statistics Norway, 2023). The Ministry of Health and Care Services has the formal responsibility for providing the country's population with equal access to good-quality healthcare services (Saunes et al., 2020). Services are financed through a National Insurance Scheme and managed and supervised by the ministry through extensive legislation, annual and earmarked budget allocations (block grants) to a state or municipal government body. The Norwegian health and welfare system is per capita among the most expensive (NOU, 2023:4; Saunes et al., 2020). In 2022, the total nursing and care expenditure was NOK 154,8 billion and the healthcare costs per inhabitants was NOK 77,244 (Statistics Norway, 2023).

Provision of healthcare is divided into *primary services* (such as general practitioners, medical emergency centres, LTC eldercare services, physical therapy, and school health services, and *secondary* (*specialist*) *services* (such as hospitals, dental care, and various treatment centres) (Saunes et al., 2020). Primary and secondary services are mainly public and semi-decentralised, administered at three levels – state (central), counties (regional), and municipalities (local). The state of Norway and its eleven counties (in 2023) are responsible for the provision of secondary care services. Primary healthcare and social services are managed and provided by the country's 356 municipalities (in 2023). Additionally, a small part of these services is provided by private for-profit actors, e.g., about eight percent of the total nursing home beds and two percent of hospital beds (Statistics Norway, 2023).

Those employed in the primary healthcare service

In 2022, more than 240,000 persons (about 185,000 work-years) were employed in the primary healthcare service in Norway (NOU, 2023:4). Licensed practical nurses (in Norwegian, 'helsefagarbeidere') constitute one of the largest group of workers, but by 2021 they were solidly outnumbered by registered nurses (in Norwegian, 'sykepleiere'), who now amount the largest group of healthcare workers in this part of the healthcare system (NOU, 2023:4). In 2022, about 22 percent of the total work-years of the direct care staff in the primary healthcare service had no relevant education for such work. In this thesis, this group of workers are called healthcare assistants (in Norwegian, 'ufaglærte pleiemedhjelpere'). Between 2015 and 2022, the number of healthcare assistants has decreased slightly (NOU, 2023:4).

In Norway, licensed practical nurses have completed two years of education on a secondary vocational level and two years of training. Registered nurses have, at least, completed a three years Bachelor's degree (Saunes et al., 2020). Of workers in the primary healthcare service without formal qualifications for their jobs, more than 40 percent have education at a secondary school level or lower and approximately 40 percent at high school level. Only a marginal proportion have education on a higher level (NOU, 2023:4).

3.1.2 Long-term eldercare services

Organisation and main types of service settings

Embedded in the social democratic Nordic welfare system, the arrangements in Norway for access to equal LTC services are well-established. Still, the municipalities have a relatively high degree of autonomy in deciding upon the organisation of the services (Ågotnes, 2018; Saunes et al., 2020). LTC services are financially based on a split among grants from the state and municipal taxes and, to a certain extent, private self-payments based on individual income (NOU, 2023:4; Saunes et al., 2020). LTC services are assigned 'when needed', that is, the access to services follows no guideline but is based on needs assessments negotiated between the facility and the user and his or her family (NOU, 2023:4; Saunes et al., 2020).

Two main types of LTC settings exists – *patients' homes* and *residential facilities* (Grødem, 2018; NOU, 2023:4). Included services in the first are home-nursing and home-help. Included in the latter setting are day centres, nursing homes (in Norwegian, 'sykehjem', and care homes (in Norwegian, 'omsorgsboliger'). The dominant approach is to support people to live independent lives in their own homes for as long as possible and offer healthcare services in the homes (Norwegian Ministry of Health and Care Services, 2023). However, in most cases, the health of the older persons becomes so poor at some point that they need extensive and around-the-clock support and thus can no longer live in their homes (Grødem, 2018; NOU, 2023:4).

Nursing homes

According to OECD data, much of the Western World, including countries in Scandinavia such as Sweden and Denmark, relies considerably on residential care for older people (Dyer et al., 2020). Residential LTC facilities offer short-, intermediate-, or long-term housing in a domestic styled environment to persons of all ages (above the age of 18) who cannot function independently due to physical and/or mental disorders. However, the residents are mainly older persons (>67 years) with round-the-clock functional support and caring needs due to complex health challenges and/or chronic disabilities (Ågotnes, 2018; Bos et al., 2017). In countries worldwide, many different terms are used for residential LTC facilities for older people, such as: *care homes*, *nursing homes*, *retirement homes*, *assisted living facilities*, *skilled nursing facilities*, *homes / institutions for the elderly / aged*, *long-term care institutions*, *intermediate care facilities*, *institution services*, and *nursing facilities*. In the present thesis, the first two terms are used.

In Norway, there are two types of residential LTC facilities for older persons – *nursing homes* and *care homes*. The services these two types of facilities offer can vary slightly, both across and within these types (Ågotnes, 2018; Bos et al., 2017). In this thesis, no distinction is made between nursing homes and care homes, and they are collectively referred to as nursing homes. The reason is that the two types of LTC facilities share essential features in terms of the daily work and service operations, management organisation, occupational categories, composition of employee expertise, staffing levels, and number of beds (Ågotnes, 2018; Grødem, 2018).

Based on data from 2022, there were a total of 39,288 beds distributed across the 922 nursing homes in Norway (Statistics Norway, 2023). Of the total 41,143 residents, 11,097 persons were aged 90 years and above, 14,932 persons were between 80 and 89 years old, 9,550 persons were between 67 and 79 years, and 5,564 persons were under 67 years. A total of 31,198 of the residents had long-term stays and 10,061 had short-term stays (Statistics Norway, 2023).

Those employed in nursing homes

In Norway, *healthcare assistants* are the primary direct caregivers in nursing homes, followed by *licensed practical nurses*. Other industrialized countries with similar composition of caregivers in nursing homes are Germany, Canada, Great Britain, and the USA (Laxer et al., 2016). *Registered nurses* employed in nursing homes are also involved in the direct care for the residents. However, they have an expanded role and primarily provide indirect care tasks such as care planning and coordination and monitoring of medication management and documentation (Montayre & Montayre, 2017). Thus, the educational requirements and work responsibilities and tasks between these professional roles differ. Nevertheless, their work contributions are highly interconnected, and they are all to some extent ‘hands-on’ in providing person-centred care.

In the present thesis, licensed practical nurses, registered nurses, and healthcare assistants involved in the direct care of older persons in nursing homes are collectively referred to as *nursing staff*. The term *healthcare workers* include a broader range of healthcare professionals.

3.1.3 Demand for person-centred care

Person-centred care is becoming an explicit expectation of governments and health organisations throughout the world (WHO, 2015). There are multiple potential benefits of applying person-centred care in practice and several models to guide this. Based on an assessment of peer reviewed empirical studies published in English from 2000 to 2018, Meranius and colleagues (2020) reported the following advantages of person-centred care in different types of healthcare settings: improvement in mutual interaction in relationships between caregivers and patients, health, well-being, work environment, and cost-effectiveness.

In a narrative review assessing interventional studies aimed at improving the quality of LTC, the findings showed that applying a person-centred philosophy guided by culture change models had positive effects on residents' psychological well-being (Li & Porock, 2014). Moreover, among older adults with dementia, providing person-centred care decreased psychotropic medication use and various behavioural symptoms (e.g., agitated physical behaviour and verbal aggression). In a controlled intervention study among persons with coronary syndrome, Pirhonen and colleagues (2017) found that those receiving the intervention – person-centred care – returned to work to a greater extent, experienced higher health-related quality of life, general self-efficacy, and physical activity level six months after starting the intervention.

Within the Norwegian context, the practical recommendations given in the report; *A full life - all your life: A quality reform for older persons*, can help guide the development of high-quality person-centred services for persons over the age of 65 in various LTC settings (Norwegian Ministry of Health and Care Services, 2018). For a more age-friendly Norwegian society and healthcare system to develop, the report promotes, among other things, the opportunity to choose (who provides services, which services are provided, and where and when services are provided), opportunities for daily activities based on individual wishes and interests, freedom to choose what to eat, and possibilities to contribute with one's resources despite health issues. Moreover, the report highlights the importance of ensuring a supportive (working) environment for the healthcare workers and the older persons' families (Norwegian Ministry of Health and Care Services, 2018).

Care that is person-centred involves engageing the self and one's personal qualities (McCance & McCormack, 2017a). It follows that taking care of the users of healthcare services requires taking care of the providers (Løvseth & De Lange, 2020). This includes

strategies to protect the physical and mental health of employees by creating supportive working environments (Knardahl, 2020). In the report; *Time to act: The personnel in a sustainable health and care service*, the Norwegian government has advocated the exact same focus and effort (NOU, 2023:4).

3.1.4 Current workforce challenges

In 2021, 15 percent of the total number of employed people in Norway worked in the healthcare system (400,000 persons, mainly women). Of the 473,129 employed with a healthcare education in 2022, only 364,506 (77 percent) worked in the health and social services (Statistics Norway, 2023). The absolute number of registered nurses (in 2020: 17,7 per 1,000 inhabitant) and the proportion of nurses compared to doctors in Norway are among the highest in Europe. Still, a considerable shortage of qualified healthcare workers, particularly registered nurses in the LTC eldercare services, is predicted in the coming years (Grødem, 2018; NOU, 2023:4; Saunes et al., 2020). Bratt and Gautun (2018) conducted a nationwide survey among 4,945 registered nurses working in home nursing and nursing homes in Norway. The study showed that only about half of the registered nurses intended to stay in eldercare services, with 25 percent certain they wanted to leave and 25 percent uncertain about continuing.

The recent Norwegian government report; *Time to act: The personnel in a sustainable health and care service* (NOU, 2023:4) shows that, from 2019 to 2040, the requirements for work-years in the primary care services will increase by 50 percent, that is, above 100,000 work-years. In this part of the healthcare system, the report identifies four main areas of challenge:

- Extensive use of part-time positions
- A large proportion of employees without formal health- or care-related education
- High levels of sickness absence
- High turnover

These are all factors that can contribute to lowering the quality of services offered, the level of competence, and the perceived attractiveness of working in primary care services. Furthermore, these factors can negatively affect employees' working conditions, employers' access to workers, and organisations' financial situation and reputation (NOU, 2023:4). Moreover, in 2012, the Coordination Reform was introduced, which aimed to develop more holistic and coordinated services between healthcare organisations at the primary and secondary levels (Norwegian Ministry of Health and Care Services, 2009). This reform imposed more responsibility on municipalities for 24-hour support for people with multi-morbidities and chronic diseases after hospital discharge (Saunes et al., 2020). Thus, even more pressure was put on primary care.

3.2 Work and health

3.2.1 Working environment in nursing homes

The working environment is recognised by WHO (1998) to be a key determinant of employee well-being and health. To supplement the rationale for conducting the studies presented in this thesis, the following two sections briefly summarise evidence about positive and challenging working environment factors in nursing homes.

Positive factors:
In a study mainly among nursing staff in nursing homes in Sweden, the Netherlands, and Ireland, participants described a sense of fulfilment, accomplishment, and personal and professional growth as some of the benefits of working in nursing homes (Eldh et al., 2015). Key factors cited were the experience of building prolonged relationships and bonding with the residents and colleagues. According to the findings in an interventional study, implementing person-centred services in dementia care is associated with desired outcomes for both residents and staff (Edvardsson et al., 2014). Positive outcomes were higher self-reported scores on person-centredness of employees' care practice, a more hospitable environment in the facility, and reduced staff stress.

In a study among 1,014 registered nurses and licensed practical nurses in 28 different nursing homes in Norway, 45 percent of the participants described their working environment as favorable (Potrebny et al., 2022). Modifiable organisational and individual factors contributing to this experience included adequate arrangements for feedback and evaluation among colleagues, sufficient staffing levels and time for service delivery, supportive work culture, full-time employment, and working day shifts. However, the findings in the study indicated that the working environment conditions in nursing homes vary significantly.

Challenging factors:
A critical factor for those providing healthcare services in nursing homes relates to social demoralization and devaluation. According to a systematic review examining the stigma of working in elderly care, employees may suffer from psychological distress and negative job consequences, such as job dissatisfaction and intentions to leave the job, based on their work being socially discredited by the general public (Manchha et al., 2021). Similarly, a study conducted in two nursing homes in Sweden, showed that staff's experiences of structural stressors, such as work overload and low occupational status, could negatively affect their health (Elwer et al., 2010). The researchers concluded the same concerning stressors involving workplace relations in terms of, for example, gendered micro-divisions of tasks and insufficient collaboration among colleagues.

Another critical factor is the nursing staff's experience of work strain related to perceived high job demands and low resources. In a study among 3,471 direct care workers in 155 Swiss

nursing homes, 24 percent experienced emotional exhaustion and 19 percent experienced back pain (Dhaini et al., 2016). The mental and physical health conditions were associated with psychosocial working environment factors, such as heavy workload (e.g., extensive work tasks and regularly having to deal with difficult situations), lack of recognition (e.g., underuse of skills and insufficient information), and conflict with colleagues. Moreover, in a study among 1,865 employees in Canadian nursing homes and 1,625 employees in the same setting in Norway, Denmark, Sweden, and Finland, the findings showed that violence and physical and sexual harassment is an expected and institutionally normalized part of this type of care work (Daly et al., 2011). This was, however, more prominent in Canada than in the Scandinavian countries, partly related to structural conditions, such as lower staffing levels, higher time pressure, and lower staff-to-resident ratio.

Some studies focus exclusively on the working situation of registered nurses, and a few others on healthcare assistants. According to registered nurses, factors linked to their experience of poor care environments, displeasure, and negative health-related outcomes are to be found on both personal and institutional levels. Key examples of personal-level factors include; balancing many work tasks, time pressure making it difficult to complete care tasks, facing numerous ethical problems, and moral distress. Key examples of organisational-level factors include; chronic understaffing, insufficient access to updated resident information, and a perceived imbalance between level of responsibility and autonomy, professional recognition, and decisional power (Alexander et al., 2023; Pijl-Zieber et al., 2008). For healthcare assistants working in nursing homes, key examples of well-known challenging working environment conditions include: high quantitative and physical work demands, low levels of positive challenges and support from supervising nurses, and exposure to violence, threats, and role conflicts (Andersen & Spiers, 2016; Eriksen, 2006; Holmberg et al., 2013). Moreover, healthcare assistants experience low control over work pace, insufficient involvement in decision-making, and high requirements for the establishment and maintenance of good relations with the residents.

3.2.2 Health-related outcomes of work engagement

Evidence suggests WE – whose aspects include work-related cognitive, emotional, and physical well-being – correlates with a wide range of health-related outcomes (Bailey et al., 2017). Among 30 female cleaning workers in Finland, there was an association between WE and healthy cardiac autonomic activity (decreased heart rate and increased high-frequency power of heart rate) (Seppälä et al., 2012). In a study based on a sample of 2,233 employees across 12 workplaces in Japan, the findings showed a positive association between WE and healthier dietary behaviours (Amano et al., 2020). However, in their systematic review of 70 studies on WE, Cortés-Denia and colleagues (2023) found that WE was more strongly associated with psychological health-related outcomes than physical health symptoms and behaviours (e.g., insomnia, diabetes mortality risk, fibrinogen levels, and physical activity and exercise). For example, WE was related to psychological health-related outcomes such as

high levels of life satisfaction and well-being, and low levels of stress, psychological tension, fatigue, and depression.

In their narrative synthesis, Bailey and colleagues (2017) found desirable associations between WE and different general / physical health outcomes in nine out of 47 studies. This applied, for example, to outcomes such as experiences of good health, sleep quality, ability to make decisions, low degree of worry, increased life satisfaction and job performance, and decreased ill-health. Moreover, five studies reported negative associations between WE and stress and burnout. Four studies found a positive association between WE and life satisfaction, and several other studies did the same between WE and positive affect. The most consistent finding with regard to employees' well-being and health perceptions was the positive link between WE and life satisfaction (Bailey et al., 2017). It should be mentioned, however, that there are concerns among researchers about whether over-engaged employees may risk becoming burned out – indicating a possible undesirable 'dark side' of WE and a curvilinear relationship between WE and health and well-being (Schaufeli & Salanova, 2011).

Lastly, research studies have also established a link between WE and work safety. Based on data from 186,440 respondents from 203 samples, Nahrgang and colleagues (2011) conducted a meta-analysis focusing on safety outcomes of WE and burnout. Study findings showed that, via WE, the job resource of safety climate predicted lower rates of injuries and accidents. Via burnout, the job demands of hazards and risks were associated with high levels of errors and other adverse events at work (Nahrgang et al., 2011).

3.2.3 Building a sustainable healthcare workforce

Workplaces should focus on developing person-centred practices that provide sustainable person-centred care based on participatory ways of working and supportive environments (Cardiff et al., 2020; Ebrahimi et al., 2021). Although the proportion of healthcare workers among the total number of employed people in Norway has more than tripled over the last 50 years, Norway faces significant challenges in ensuring a sustainable healthcare workforce and high-quality healthcare services (NOU, 2023:4). The evidence presented in the introduction and background chapter of this thesis indicates similar challenges in healthcare systems globally.

In a scoping review of Nordic health promotion research by Eriksson and colleagues (2017), a qualitative content analyses of 20 research articles showed that aspects related to sustainable workplaces often serve as a means of framing the significance of the studies. Health promotion is a whole-system approach to promote well-being and health through collaboration and involvement of different stakeholders on multiple levels (WHO, 1998; Wills, 2023). Health-promoting approaches at the workplace reach a large part of the adult population and underscore recognition that a healthy workforce is essential to the quality of

the services delivered (WHO, 1998). Based on the many identified positive outcomes of WE on personal and organisational levels, WE has been proposed as a relevant outcome measure in workplace health promotion (Torp et al., 2013).

Recent literature reviews have demonstrated that organisations can boost employees' WE by improving working environment conditions through tailored and targeted interventions (Björk et al., 2021; Knight et al., 2019). From a health promotion perspective, a focus on boosting employees' WE can be expected to have multiple positive effects on organisational and individual levels, and is thus an important additional perspective to the more traditional activities aimed at disease and injury prevention (Bailey et al., 2017; Kuhn & Chu, 2022; Torp et al., 2013). Strategies to improve employee well-being and health as part of an integrated and whole-system approach to building a sustainable workforce can thus be expected to create a competitive advantage in organisations (Løvseth & De Lange, 2020; Parkinson, 2018).

4 THEORETICAL FRAMEWORKS

This chapter describes the theoretical frameworks relevant to this thesis, that is, the Job Demands-Resources (JD-R) model (Bakker & Demerouti, 2008) and the Person-centred Practice Framework (McCance & McCormack, 2017a). Within these two frameworks, this chapter presents the central concept of each: respectively, work engagement (WE) and person-centred processes (PCP).

4.1 The Job Demands-Resources model

Although WE is operationalised and described in multiple ways, it is most often explained and theorised within the JD-R model (Bailey et al., 2017). The first full version of the JD-R model was introduced in the international literature in early 2000 (Demerouti et al., 2001). Later, based on their own previous work (Bakker & Demerouti, 2007) and the findings of other studies, Bakker and Demerouti (2008) introduced an extended and more comprehensive model for WE.

Keyko and colleagues (2016) developed a specialised model – the Nursing Job Demands-Resources (NJD-R) model – for use in professional nursing practice. The NJD-R model builds on the central claims of the JD-R model. However, the NJD-R model is developed from studies on WE mainly among registered nurses employed in acute hospital care. Thus, the scope of the model is somewhat restricted, as it includes neither healthcare professionals such as licensed practical nurses and healthcare assistants nor other settings, such as nursing homes. In the present thesis, we choose not to present the NJD-R model. However, when relevant in the discussion chapter, there will be references to the findings in the systematic review on which the NJD-R model is based (Keyko et al., 2016). The reason is that the NJD-R model is the only model that is developed exclusively for research on WE within healthcare.

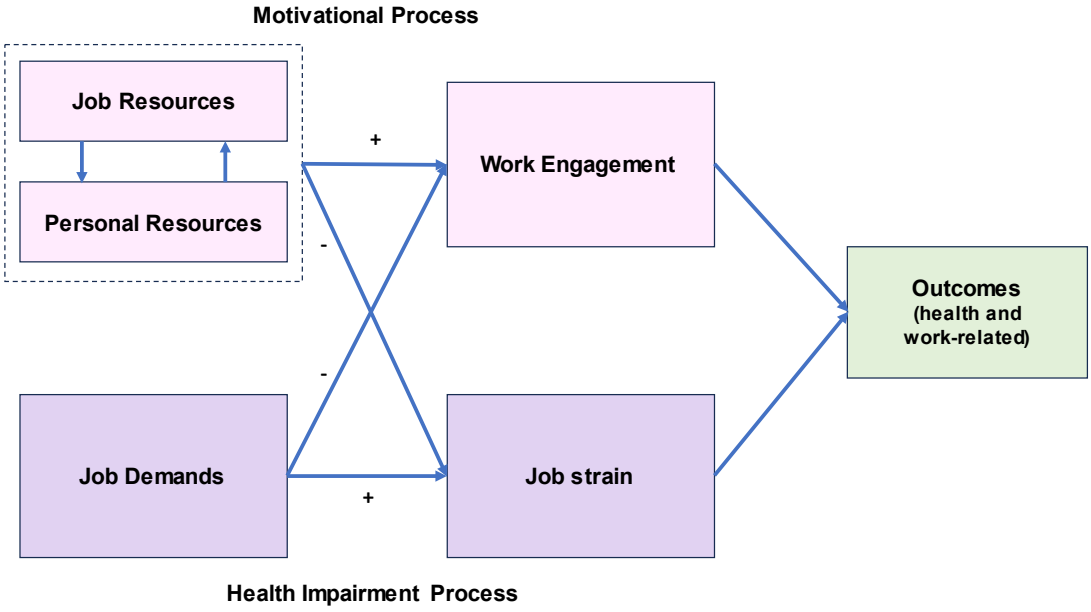
4.1.1 Job demands and job resources

Influenced by two well-known job stress models, the Demand-Control (DC) model (Karasek, 1979, 1998) and the Effort-Reward-Imbalance (ERI) model (Siegrist, 1996), the JD-R model (Figure 1) suggests there are two broad categories of working environment conditions affecting the two parallel, but fairly independent, processes leading to employee well-being (WE) and job strain (burnout) – respectively *job resources* and *job demands* (Bakker & Demerouti, 2017). In this, the JD-R model differs greatly from the DC model and ERI model, which only include a limited number of job resources and job demands.

Demands

Job demands are *' … physical, psychological, social, or organisational aspects of the job that require sustained physical and / or psychological (cognitive and emotional) effort or skills and therefore are associated with certain physiological and / or psychological costs.'* (Bakker & Demerouti, 2007, p. 312). Examples of job demands relevant across different occupational groups and settings are high work pressure and emotional demands (Bakker, Demerouti, & Sanz Vergel, 2014).

Figure 1 The Job Demands-Resources (JD-R) model (adapted from Bakker and Demerouti 2007; 2008)



There are indications that job demands can be experienced either as *hindrance demands* or *challenging demands*, depending on the professional group and occupational context (Bakker & Demerouti, 2017). Challenging demands – such as responsibility, time pressure, and high workload – can promote motivation, personal growth, and goal achievement. Hindrance demands – such as role ambiguity and role conflict – can interfere with or inhibit such desired outcomes (Lepine et al., 2005; Podsakoff et al., 2007).

Resources

Job resources are *'… physical, psychological, social, or organisational aspects of the job that are either:*

- *functional in achieving work goals*
- *reduce job demands and the associated physiological and psychological costs*
- *stimulate personal growth, learning, and development'* (Bakker & Demerouti, 2007, p. 312)

By fulfilling people's basic psychological needs for autonomy, competence, and relatedness, job resources stimulate intrinsic motivation (Van den Broeck et al., 2008). Moreover, by helping employees achieve work-related goals, job resources trigger autonomous extrinsic motivation (Bakker, 2014). This relates to *Self-Determination Theory* (*SDT*), which shows that stimulating interest and meaning-based motivation are superior to reward and pressure-based motivation (Ryan & Deci, 2020). Autonomy, opportunities for personal and professional growth, and performance feedback are examples of universal job resources (Bakker & Demerouti, 2017).

Personal resources are aspects of the self – employee psychological beliefs, appraisals, and expectancies – that impact WE both directly and indirectly through a mediated effect of positive emotions (Bakker & Demerouti, 2008). Sweetman and Luthans (2010) introduced four key psychological resources – efficacy, hope, optimism, and resiliency – in combination, termed psychological capital (PsyCap). Such positive self-evaluations refer to employees' judgement of their ability to take on and succeed at challenging tasks now and in the future, and to impact upon and control their environment successfully. According to Sweetman and Luthans (2010), the four constructs in PsyCap are developable, state-like phenomena. They are neither very fleeting, temporary states such as mood, nor fixed characteristics such as personality traits.

Mäkikangas and colleagues (2013) investigated the role of stable personality traits in explaining differences in occupational well-being. In their qualitative review of 28 studies, the classic Big Five factors – openness to experience, neuroticism, extraversion, conscientiousness, and agreeableness – were examined. The findings showed that variance in levels of WE was associated with emotional stability, extraversion, and conscientiousness. This suggests that employees' personality can play a role both in their experience of and reaction to various job demands and job resources (Mäkikangas et al., 2013).

4.1.2 Central claims in the model

Two processes affecting employee well-being.
Job resources are known to have a motivational potential and predict employees' job performance and positive organisational outcomes (Bakker, Demerouti, & Sanz Vergel, 2014). This causal relationship, triggered by job resources and in which WE acts as an intermediate factor, is referred to in the JD-R model as *the motivational process* (Bakker & Demerouti, 2007). Employee job strain, burnout, and ill health occur in working environments characterised by long-term high levels of job demands and low resources. This is referred to as *the health impairment process*. In the JD-R model, the relationship between the health impairment process (triggered by demands) and the motivational process (triggered by resources) is largely presented as independent (Bakker, Demerouti, & Sanz Vergel, 2014). However, according to Bakker and Demerouti (2017), more research is needed to discern the relationship between the dual pathways to employee well-being.

Job demands and job resources are context specific
The JD-R model posits that the specific drivers of WE vary according to organisational type, occupational sector, and work tasks (Bakker & Demerouti, 2008). While some job demands and job resources are more universal (e.g., work pressure and autonomy), others are unique to the specific occupation under consideration (e.g., various physical demands in nursing and construction work, and cognitive demands in engineering and academic work) (Bakker, Demerouti, & Sanz Vergel, 2014).

The buffering effect of job and personal resources
The JD-R model posits that job resources primarily predict WE and job motivation. However, they do so especially when the levels of job demands are high (Bakker & Demerouti, 2008). Thus, job resources are significant in themselves, but they are also important for buffering the undesired effects of job demands on work strain. Personal resources are expected to have the same buffering effect on job demands as job resources.

Balancing job demands and job resources
According to the JD-R model, job demands and job resources covary in the working environment (Bakker & Demerouti, 2007). The level of job demands seems to be more predictive of burnout than the lack of job and personal resources (Bakker & Demerouti, 2017). Nevertheless, from a social exchange perspective, Schaufeli (2006) showed that under conditions of prolonged imbalance between resources and demands, engaged employees can experience insufficient reciprocity and may therefore burn out. Thus, the process of balancing available job demands and resources to enhance employees' WE and prevent burnout is essential.

4.2 Work engagement

In business, *employee engagement* is the most widely used term, while the term *work engagement* is preferred in academia (Schaufeli & Salanova, 2011). Schaufeli and colleagues (2019) state that *work engagement* and *employee engagement* are used, and can be used interchangeably. However, based on a recent systematic review of 110 studies focusing on definitions and antecedents of engagement, Kossyva and colleagues (2023) concluded that the terms work engagement and employee engagement refer to different things. *Work engagement* includes multiple aspects regarding employees' work experience: their job tasks, team, and organisation. Thus, the concept constitutes a broad approach to engagement. *Employee engagement* focuses solely on the work activity of an engaged employee and is thus a narrower approach. In the present thesis, the term *work engagement* is used.

4.2.1 Historical development

Although the origin of the term (*work*) *engagement* is somewhat unclear, Kahn (1990) is recognised as the first scholar to introduce the concept in academia. With reference to employees' behavioural expression of the authentic self in work, he developed the terms *personal engagement* and *personal disengagement*, that is, the opposite poles on an engagement continuum. Kahn conceptualized personal engagement as the '… *harnessing of organisation members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances*' (Kahn, 1990, p. 694). On Kahn's (1990) approach, critical elements in personal engagement include *attention* (cognitive availability) and *absorption* (the intensity of employees' focus).

The academic interest in and contemporary research on WE can be traced back to research on *burnout* in service and caregiving professions, occupational environments known to be emotionally demanding (Bakker et al., 2008; Maslach et al., 2001). Many foundational concepts regarding WE originates from the pioneering work of Maslach and Leiter (1997; Maslach et al., 2001). According to their perspective, the fundamental elements of WE – *professional involvement*, *energy*, and *efficacy* – ought to be seen as direct contrasts, or opposites, to the core dimensions of burnout, which are – *professional cynicism*, *exhaustion*, and *reduced professional efficacy*. As described by Maslach and colleagues (2001, p. 416.) tasks that were once characterised as *'important, meaningful, and challenging work*' can transform into something '*unpleasant, unfulfilling, and meaningless*' when burnout takes hold.

With a basis in stress and job-strain literature and inspired by positive psychology with a focus on recognising and building human qualities (Seligman & Csikszentmihalyi, 2000), Schaufeli and colleagues (2002) developed a definition of WE by building on and extending Maslach and Leiter's (1997) line of thinking. In both notions WE is recognised as a positive work-related psychological state of fulfilment and well-being. However, Schaufeli and

colleagues argue that WE should be understood as a unique concept, distinctively different from and negatively associated with burnout (Schaufeli et al., 2002; Schaufeli et al., 2008).

4.2.2 Definition and motivational mechanisms

Definition of work engagement

In this thesis, WE is understood in line with Schaufeli's operational definition, that is, as a three-component motivational construct defined in its own right as '… *a positive, fulfilling, work-related state of mind that is characterised by vigor, dedication, and absorption*'. (Schaufeli et al., 2002, p.74). *Vigor* refers to feeling alert, energetic, and positively challenged, *absorption* to being deeply focused and happily engrossed, and *dedication* to being enthusiastically and passionately involved in one's job and mentally resilient and persistent when facing hindrances and challenges (Schaufeli et al., 2002).

WE implies a mental state of harmony between oneself and one's work role. It seems to positively affect observable behaviours of employees, such as proactive behaviour leading to enhanced personal initiative and pursuit of learning (Sonnentag, 2003). Moreover, WE enables various in-role and extra-role task performance activities that promote organisational effectiveness (Christian et al., 2011; Xanthopoulou et al., 2008).

In recent research, WE is described as both a trait-like (stable) and state-like (episodic) experience. The term *trait-like* refers to the more pervasive and persistent experience of WE, resembling stable personality traits (Bakker & Albrecht, 2018; Bakker, Demerouti, & Sanz Vergel, 2014). The term *state-like* refers to the momentary experience of WE; that is, employees' internal feeling of constant fluctuations in the level of WE when performing their work, both across situations and time (Bakker & Albrecht, 2018; Sonnentag et al., 2010). Hence, it is possible that highly engaged employees may still feel less engaged during periods of a working day (Reina-Tamayo et al., 2017).

According to Bailey and colleagues (2017), Schaufeli's definition is the predominant definition of WE today. However, the academic field offers multiple diverging conceptualizations of (work) engagement (Wefald et al., 2012). An example of a conceptually similar construct of engagement to the definition of Schaufeli and colleagues (2002), is Shirom's construct of *vigor* (Shirom, 2003, 2011). This concept builds on Kahn's (1990) original definition of engagement and consists of three components reflecting employees' feelings of emotional energy, physical strength, and cognitive liveliness. Another similar construct is the three-dimensional concept of engagement introduced by May and colleagues (2004). Consisting of a physical, cognitive, and mental component, this construct to some extent corresponds to the vigor, dedication, and absorption aspects of Schaufeli's definition of WE.

Mechanisms behind the power of work engagement

The JD-R model proposes that job performance is positively influenced by motivation and negatively by job strain (Bakker & Demerouti, 2017). Several factors may help explain the dynamic motivational process underlying the superior performance of engaged versus non-engaged workers. For example, employees who are engaged often experience positive emotions (e.g., enthusiasm, joy, and happiness), create their own job and personal resources (job crafting), experience better health, and transfer their engagement to colleagues (Bakker & Demerouti, 2008).

Firstly, by proposing a model of human motivation, *the Conservation of Resources* (*COR*) *theory* by Hobfoll (1989) is relevant to the understanding of WE. According to the COR approach, people tend to invest their resources to deal with stressful working environments and avoid negative outcomes. Moreover, to avoid future resource loss, employees strive to accumulate job resources in so-called 'gain cycles' or 'gain spirals' (Llorens et al., 2007; Xanthopoulou et al., 2009a). Secondly, in line with the *Broaden-and-Build theory* (Fredrickson, 2001; Fredrickson & Branigan, 2005), positive emotions can broaden employees' scope of attention and thought-action repertoires, which in turn contribute to an expansion of job resources and foster emotional well-being. Lastly, employees who experience WE are more likely to use job crafting behaviours, which facilitate the development of job and personal resources and higher levels of motivation (Bakker & Demerouti, 2017). *Job crafting* is about employees actively crafting the task, cognitive, and relational boundaries of their work to make it a more meaningful and positive experience and change their work identity (Wrzesniewski & Dutton, 2001). According to the findings from a longitudinal study, employees' active attempts to accumulate job resources can positively influence WE, career satisfaction, and task performance over time (Dubbelt et al., 2019).

4.2.3 Measurement

In early 2000, Schaufeli and colleagues (2002) developed a self-report questionnaire for measuring WE – *the Utrecht Work Engagement Scale* (*UWES*). As a well-established and validated instrument for use in several languages and occupational settings, the UWES is the most widely adopted measure of WE in business and academic settings (Bailey et al., 2017). The original UWES-instrument contained 17 items (UWES-17), including six items for the constituent component *vigor*, five items for *dedication*, and six items for *absorption* (Schaufeli et al., 2002). Later a shortened version of nine items was developed (UWES-9), including three items for each of its scales (Schaufeli et al., 2006).

Among 14,521 respondents from ten different countries, UWES-9 demonstrated a robust three-factor structure and adequate internal psychometric properties, such as factorial validity, internal consistency of the three scale scores, and test-retest reliability (Schaufeli et al., 2006). In a longitudinal study by Seppälä and colleagues (2009), the three-factor structure of both UWES-17 and UWES-9 was supported. This structure, however, appeared

to be more robust over time and across occupational groups in UWES-9 compared to UWES-17. According to the narrative synthesis involving 214 studies conducted by Bailey and colleagues (2017), the nine-item version of UWES is the most used instrument to measure levels of WE. For that reason, the present thesis applied the UWES-9.

4.3 The Person-centred Practice Framework

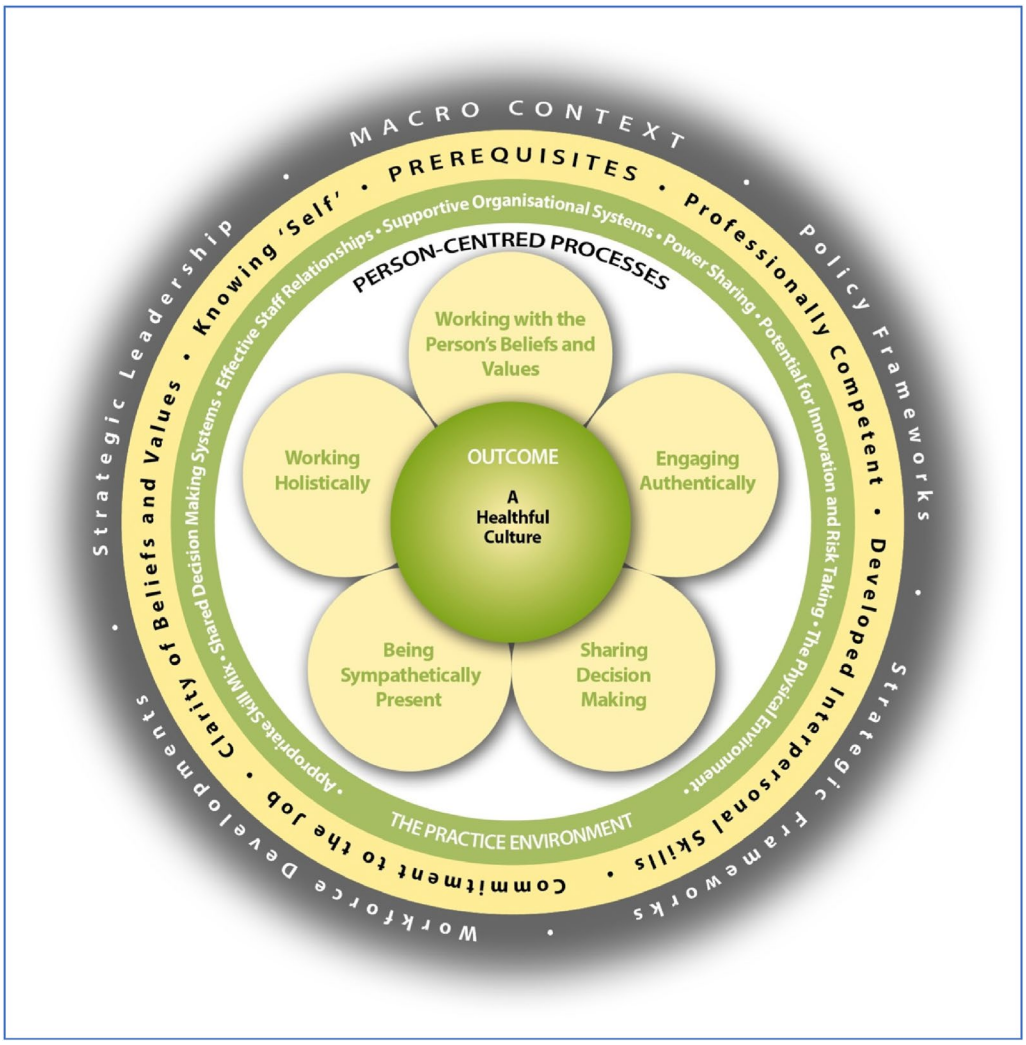
4.3.1 Key domains in the framework

In addition to the JD-R model, this thesis is based on the key tenets and philosophical underpinnings of person-centred care and practice, which revolves around the holistic being of a person, not reducing the person to either patient or care provider.The work in the thesis is based on *the Person-centred Practice Framework* (McCance & McCormack, 2017a, 2017b), a framework chosen for its applicability to a wide range of healthcare workers. Moreover, it operationalises constructs and approaches that are relevant to the development of effective person-centred practices and cultures across multiple healthcare settings (Edgar et al., 2020). Lastly, the framework guides the development of person-centred outcomes for both those who receive and provide care.

The original version of the Person-centred Practice Framework (McCance & McCormack, 2017a) describes four key domains: *prerequisites*, the *care environment*, *person-centred processes*, and *outcomes*. In the re-presented version (Figure 2), the *macro context* is included as a domain at the outer ring of the framework and the domain of the care environment is renamed as the *practice environment* (McCance & McCormack, 2017b). The *macro context* describes the strategic and political factors that influence the development of person-centred practice. *Prerequisites* highlight the essential characteristics of a healthcare worker who can deliver effective person-centred care. The *practice environment* is about the environmental factors that facilitate person-centred ways of working. *Person-centred processes* (PCP) describe the activities that make up a person-centred practice in the context of providing healthcare services. *Outcomes* display the desired outcomes from effective person-centred practice.

The relationship between the key domains included in the Person-centred Practice Framework is shown in its visualisation. According to the framework, the element of strategic support (the macro context) must be considered first, followed by the attitudes, behaviours, and skills of the individual healthcare worker (prerequisites), followed by physical, organisational, and psychosocial contextual conditions (the practice environment), which, in turn, are significant to the activities (PCP) necessary to achieve person-centred outcomes for all involved. The framework thus highlights a whole-system approach to healthcare delivery.

Figure 2 The Person-centred Practice Framework (McCance & McCormack, 2017b)



There are several frameworks that can inform the development of person-centred care and practice. One example is *the Model for person-centred care* developed at the Gothenburg Centre for Person-centred Care in Sweden (Ekman et al., 2021; Ekman et al., 2011). Another framework is that proposed by the Health Foundation in Great Britain (The Health Foundation, 2016). A third framework is *the Fundamentals of Care Framework* (Kitson et al., 2013). Common features of these frameworks are that they all put persons in the centre of care, emphasise relationship building, regard the person as an active part in care decision-making, and represent a system-level approach. However, when the conceptual clarity about person-centredness and person-centred care and the integration of knowledge across research fields is insufficient, a linear and parallel knowledge about person-centredness can develop (Edgar et al., 2020). For example, regarding the Fundamentals of Care Framework, Feo and colleagues (2018) argue it needs support from a clear definition for fundamental care and input from substantially more empirical research into its included key areas.

4.3.2 Measurement of person-centred processes

In this thesis, PCP are assessed using *the Person-centred Practice Inventory - Staff* (PCPI-S) (Slater et al., 2017). The tool has been developed for use in situations of change and care development and to measure how staff perceive person-centred practice. Theoretically, the PCPI-S is based on the original Person-centred Practice Framework (McCance & McCormack, 2017a), which describes 17 constructs significant to the domains of prerequisites, the care environment, and PCP.

In the PCPI-S, the three main domains with their 17 constituting constructs are assessed by 59 items. The measurement has proven sound in terms of psychometric properties among a multi-professional group of experts in the area of person-centred practice and research and in a sample of hospital nursing staff (Slater et al., 2017). This, for example, concerns the acceptability of construct definitions, items' face validity, and factor loading scores. Recently, based on data from a multi-disciplinary sample from different work settings, McCance and colleagues (2021) provided statistical evidence supporting the relationship within the Person-centred Practice Framework and thus also confirmed the PCPI-S. The same was shown in a cross-sectional study among healthcare providers working in primary healthcare clinics (Balqis-Ali et al., 2022).

4.4 Person-centred care and practice

Over the last decades, person-centredness and person-centred thinking in healthcare have gained significant recognition and become a central focus in health policy, research, and practice (McCormack et al., 2015; WHO, 2022b). The concepts have evolved over time, but because of insufficient clarification and operationalisation, multiple terms and concepts exist to express the idea of adopting person-centredness in healthcare practice – such as *person-centred*, *patient-centred*, *client-centred*, *people-centred*, *relationship-centred*, *women-centred*, and *family-centred care* (Dewing & McCormack, 2017; Morgan & Yoder, 2012). A common feature of these concepts is that they aim to replace the previously prevailing paternalistic and bio-medically (disease) oriented view of healthcare services with a more holistic (bio-psychosocial-spiritual) approach (Eklund et al., 2019).

4.4.1 Historical development

<u>The understanding of being a person</u>

Central to humanising healthcare services is the understanding of being a 'person'. Some argue that the earliest roots of *person-centredness* can be traced back to ancient Eastern and Western civilizations (Dewing et al., 2017). However, through his humanistic philosophies and theory – Client-centred therapy in counselling – the renowned American psychologist Carl Rogers (1961), among others, laid the foundation for modern person-centred thinking. Key tenets of Rogers' theory include *unconditional positive regard*

(nonjudgemental acceptance and empathy), *empathetic understanding* (actively listen to understand persons' experiences and feelings), and *congruence* (genuine and authentic interactions). Based on Rogers' understanding, Kitwood (1997) provided an early relation and context-based definition of the term 'person-centred' in dementia care, focusing on the principles of *respect*, *trust*, and *recognition*.

Using Kitwood's definition as a starting point in the review of gerontological nursing literature, McCormack (2004) identified four 'modes of being' underpinning care experiences in person-centred nursing. These modes are; being in a social world, being in relation, being in place, and being with self. *Being in a social world* is about the interaction process between the person and the social context that facilitates the creation and recreation of meaning (McCormack & McCance, 2017). This part of being, which is responsive to persons' unique circumstances and preferences, is presented and re-presented through holistic narratives revealing what is important to each person. *Being in relation* refers to the significance of developing nurturing relationships and respectful partnerships between the person being cared for and everyone else involved (e.g., nursing staff and spouses). *Being in place* highlights the influence of the built environment and our emotional connections with this environment on the care experiences. *Being with self* refers to a negotiated approach and shared decision-making in care delivery between all involved based on clarity in one's values and beliefs.

The described modes of being have influenced the development of theoretical frameworks for person-centred care and the way it is applied in practice (McCormack & McCance, 2017). Continuing to develop, the concept of person-centredness now incorporates the aspects of well-being and positive health for both the person receiving and providing care (McCormack et al., 2017).

Person-centred processes for all involved

Healthcare workers' and organisations' view of being a 'person' has an immediate impact on how care is provided (Edgar et al., 2020). Two widely used concepts are *patient-centred care* and *person-centred care*, sharing many similarities. According to a review of 21 previous reviews by Eklund and colleagues (2019), both concepts evolve around nine unique themes. The themes are; *respect*, *empathy*, *relationship*, *engagement*, *communication*, *holistic focus*, *shared decision-making*, *individualised focus*, and *coordinated care*. However, the goals of patient-centred care and person-centred care differ. *Patient-centred care* aims to facilitate a functional life for the person (e.g., a perceived reduced level of suffering), while *person-centred care* aims at developing a meaningful life (a value and preference-based approach responding to the person's total needs) (Eklund et al., 2019).

McCormack and colleagues (2015) advocate the need to focus on person-centred 'practices' and 'cultures' rather than on person-centred 'care'. *Person-centred practice* is an approach to practice based on the development and fostering of healthful relationships between all care

providers and service users and others significant to them in their lives. It is underpinned by values of respect for persons, individual right to self-determination, mutual respect and understanding. Moreover, it is enabled by cultures of empowerment that foster continuous approaches to practice development (McCormack & McCance, 2017). Based on this description, person-centred practice involves the experience of person-centredness for all stakeholders and can thus be more inclusive and encompassing than person-centred care (Edgar et al., 2020).

The key tenets of person-centred practice cannot be technically applied; rather it is about the development of a specific type of culture (Dewing & McCormack, 2017). According to Edgar and colleagues (2020), organisational culture is about its operations and behaviours, shared values, goals, missions, and problem-solving. These are organisational elements that can reinforce or inhibit person-centred processes for all. Thus, a person-centred culture is essential to support a sustained commitment to a person-centred practice (Edgar et al., 2020).

4.4.2 Person-centred practices and work engagement

The original version of the Person-centred Practice Framework (McCance & McCormack, 2017a) was introduced in 2017 and builds upon the foundations laid by the earlier Person-centred Nursing Framework, which was initially published in the early 21st century (McCormack & McCance, 2010; McCormack & McCance, 2006). The Person-centred Nursing Framework aimed to foster a therapeutic culture with a primary focus on patient outcomes (Edgar et al., 2020). However, over time, this framework has undergone significant evolution and refinement through empirical research conducted across diverse healthcare settings.

One pivotal aspect of the evolution involves the integration of practice development, broadening the framework's scope to encompass the well-being of both patients and healthcare staff (Edgar et al., 2020). This shift reflects a growing recognition of the interdependence between a healthful practice and culture and improved patient care outcomes. As a result, the Person-centred Practice Framework (McCance & McCormack, 2017b) now places greater emphasis on cultivating a supportive and inclusive environment that promotes the overall well-being of healthcare workers. Furthermore, an important advancement is the framework's increased inclusivity of various healthcare professions beyond nursing. This extended perspective acknowledges the collaborative nature of modern healthcare services, recognising that person-centred care and practice involve a multidisciplinary approach where the contributions of different professionals are valued and integrated (Edgar et al., 2020).

In the JD-R model, conditions – such as social support, leadership, investment in development and learning opportunities, and job feedback – are known to enhance

employees' WE (Bakker & Demerouti, 2008). These conditions directly relate to some of the factors included in the domains of *prerequisites* and the *practice environment* shown in the Person-centred Practice Framework (McCance & McCormack, 2017b). Examples of such factors include; developed interpersonal skills, effective staff relationships, potential for innovation and risk-taking, and supportive organisational systems. Thus, the two theoretical frameworks align well. They both recognise that the building blocks for sustainable ways of working leading to various positive outcomes for all involved are factors at multiple levels: within the individual, in the physical and psychosocial working environment, and in organisational structures and strategies.

5 MATERIALS AND METHODS

This chapter describes the design and interpretive frameworks of the thesis. Moreover, it outlines the changes this PhD project has undergone due to various unforeseen events. The chapter also presents the material and methods in the different studies included in the thesis.

5.1 Design and interpretive framework

This thesis comprises an interview study (Study I), a questionnaire study (Study II), and a review study (Study III) (Table 2). Based on studies combining quantitative and qualitative methods, the thesis has a *multimethod design* (Anguera et al., 2018; Morgan, 2013). The use of several methods has contributed to a more nuanced analysis.

Table 2 Characteristics of Papers I-III

	Paper I	Paper II	Paper III
Main study content	The role of work engagement in the context of the development of person-centred processes	The antecedents of work engagement and person-centred processes as an outcome of work engagement	A state-of-the-art overview of a) the antecedents and b) outcomes of work engagement among nursing home staff
Study design	Explorative descriptive qualitative design	Analytical observational and cross-sectional quantitative design	Systematic review
Data collection	Individual digital interviews	Questionnaire	Literature retrieval
Analysis	Descriptive	Descriptive	Descriptive and narrative synthesis
Study sample	Nursing staff (n = 16)	Nursing staff (n = 128)	Nursing staff
Study setting	Nursing homes	Nursing homes	Nursing homes

The thesis is framed in a *pragmatic worldview*, which advocates flexibility and diversity in approaches to the collection and analysis of data (Creswell & Poth, 2018; Morgan, 2014). Adopting a pragmatist philosophical position makes it possible to choose the most appropriate methods, procedures, and techniques for research based on the issues being explored and the research questions being asked. Both qualitative and quantitative data, and the strengths and limitations of both, are respected. In pragmatism, perceptions, and knowledge of the world around us are recognised to be constructed both within and outside

people's minds. Pragmatism is therefore pluralistic regarding philosophical perspectives and acknowledges that multiple epistemological and ontological perspectives exist. Knowledge construction and research is always formed and influenced by the individual's unique experiences, as well as the historical, social, and political conditions of the surrounding world. This influence must be recognised and assessed in all parts of a research project (Creswell & Poth, 2018; Morgan, 2014). Consequently, the current period, the context in which the participants' narrative is embedded, and the authors' background and subjective interpretations must always be considered when reading the present thesis interpretations, results, and conclusions.

In the interview study, we wanted in-depth insight into the meaning that nursing staff working in nursing homes ascribe to WE in the context of developing PCP. Because we sought to gain a detailed understanding of the employees' experiences and interpretations of a relatively unresearched subject, an explorative qualitative study design was chosen (Polit & Beck, 2021). Seeking qualitative data was appropriate because it provided the opportunity for the participants to convey insight into the world as they construct and see it in their natural situations and environments (Creswell & Poth, 2018; Kvale et al., 2015).

The questionnaire study had a cross-sectional design. Thematically, it followed up on the interview study by assessing the impact of various job resources and job demands on WE. Moreover, it explored PCP as an outcome of WE. Quantitative study designs are of special relevance in studying these associations in a large sample. According to Aggarwal and Ranganathan (2019), there are two main study designs – 'observational' and 'interventional'. Observational studies are divided into *descriptive* and *analytical*. In *descriptive studies*, data are collected at an individual level, and the distribution of one or more variables at a specific point in time is described. *Analytical cross-sectional studies* also examine the association between several antecedents and an outcome factor. Following the classification of Aggarwal and Ranganathan (2019), the questionnaire study has an analytical observational design.

The review study aimed to gather existing research evidence on the antecedents and outcomes of WE among nursing home staff. The objective of a systematic review is to provide an overview of the current state of knowledge on a particular topic in an explicit, rigorous, and reproducible way (Grant & Booth, 2009). Such a review seemed appropriate for this study.

5.2 Changes to the original PhD project

Since the start in October 2018 of the present PhD project, its plan has undergone significant adaptations and changes, for example, to its scope, aim, and the anticipated order of research.

5.2.1 Unforeseen events

From the beginning, this PhD project was mainly planned as an interventional study and designed as a quasi-experimental non-randomised pre- / post-test trial, with a matched control group. It comprised four work units in four nursing homes spread across a municipality in the southeastern part of Norway. The overall aim of the study was to assess the effects and implementation of a structured eight-month group-based course programme to increase employee WE – the 'WE programme'. It was also aimed at developing a deeper understanding of the associations between conditions in the working environment, WE, and the development of person-centred practices. However, multiple unforeseen events changed the original plan.

An organisational restructuring process: The interventional study was planned to be carried out exclusively in nursing homes among groups of registered nurses, licensed practical nurses, and healthcare assistants. However, in late November 2019, a massive organisational restructuring was decided for the municipality's 12 nursing homes. Consequently, throughout 2020, the composition of employees and residents in the work units participating in the interventional study could dramatically change, thereby jeopardizing the implementation and evaluation of the WE programme. At that time, the intervention was about to start in two of the work units, and 90 percent of the baseline data for the effect evaluation of the WE programme had been collected. After careful consideration, we decided to proceed as planned in the included nursing home units. Additionally, two work units from two care homes were recruited, as they were not affected by the restructuring process. The interventional study then comprised four units from nursing homes and two from care homes. Thus, the unexpected organisational restructuring resulted in an expansion of the study setting and number of work units included.

The coronavirus pandemic: At the beginning of March 2020, the collection of baseline data for the effect evaluation of the WE programme was completed. Furthermore, the programme had been initiated in one work unit and was about to start in two other units. Then, due to the outbreak of the coronavirus pandemic in Norway, all prepared workshops had to be terminated, and the interventional study was put on hold indefinitely. For a long period, we did our very best to continue with the interventional study by continuously adjusting the implementation of the WE programme to the current regulations and recommendations. We were alternating unpredictably between going ahead with the implementation and being forced to put it on hold. While still feeling optimistic about eventually succeeding with the

interventional study, we decided to conduct a study based on individual digital interviews. That study was originally planned as the third study, but now became the first study in the present thesis.

After several failed attempts, the interventional study had to be permanently terminated. Then we urgently had to rethink the content and structure of the entire PhD project. The only available and unused data we had at the time were those collected at baseline for the interventional study. It was therefore decided to use these data as the basis for a cross-sectional study, which then became the second study in the present thesis. For the last study, we decided to conduct a systematic review. As no researchers previously had carried out a systematic review of the antecedents and outcomes of WE among nursing staff exclusively working in nursing homes, this was decided as an appropriate third study. The coronavirus pandemic thus resulted in substantial changes to the project's overall design and specific studies.

5.2.2 The recruitment process

The nursing staff were qualified to participate in the interventional study, and thus in the interview study and questionnaire study, based on predefined criteria at both unit and individual levels. Such a purposive inclusion strategy, targeting subjects in situations that provide experience with the phenomena under study, helps insure robustness and reliability of results (Creswell & Poth, 2018). The participants in the interview study and questionnaire study were all recruited from the six work units enrolled in the planned interventional study. The four involved nursing homes and two care homes were nonprofit and run by the local municipality. The size of the featured work units ranged from 44 to 100 beds.

In the first phase of the recruitment process, all the in total twelve nursing homes and ten care homes in the municipality were approached with written general information about the purpose of the PhD project. Subsequently, recruitment of work units based on the eligibility criteria was carefully negotiated between the director of the municipal department of health, the units' senior and middle managers, and the thesis author. This resulted in six eligible units, all agreeing to participate.

The inclusion criteria at the unit level were:

- experiencing complex and various working environment challenges and high sick leave resulting from it
- the need for assistance agreed upon by the unit’s union and health and safety representatives and local managers
- previously not having undergone a WE programme
- currently not undergoing any other interventions in the working environment

In the second phase of the recruitment process, six separate one and a half hours meetings were organised in each of the included work units. In these meetings, the units’ management

and union and health and safety representatives were informed about the PhD project's aims through a visual presentation given by the thesis author. Questions about the project were answered. Those who attended the meetings were asked to inform their colleagues about the project to give them sufficient time to decide whether to participate. Based on predefined criteria, the six middle managers made a list of eligible employees.

The inclusion criteria at the individual level were:

- having a fixed-term contract or permanent employment
- working in minimum a quarter-time position

A few weeks after the first meetings, plenary meetings of two and a half hours were held in each of the participating working units. In the first part of the meetings, a total of 130 eligible employees received oral, visual, and written information about the PhD project. This included general information about the project and the specific aims of the different studies, ethical considerations such as confidentiality and secure data handling and storage, whom to contact with questions, the right to withdraw at any time and without explanation, and the like. The nursing staff were also given the opportunity to ask questions and express their concerns. The employees who agreed to participate provided their written informed consent (see attachment no. 1).

5.3 Study I – the interview study

The interview study aimed to deepening the understanding of WE as a positive psychological state and investigate its working environmental antecedents. Furthermore, the study examined whether the motivational and behavioural characteristics of WE facilitate PCP.

5.3.1 Sample

Recruitment

Recruitment for the interview study started in April 2020. A purposive and criterion-based sample of 16 employees from three nursing homes and two care homes was included. At that time, the nursing staff already were familiar with the purpose of the PhD project through written and oral information and had contributed to baseline data for the interventional study. Use of purposive sampling allowed intentional selection of individuals known to be experienced in the problems the research aimed to investigate (Creswell & Poth, 2018).

The units' middle managers were considered best suited to identify the employees who could best inform the research. They were therefore approached by the thesis author and asked to recruit participants. The final sample composition aimed to represent different categories of nursing staff.

Inclusion criteria for the interview study were:

- three or more years of experience at the current workplace
- appropriate communication skills in Norwegian
- willingness and ability to provide information from different perspectives on the central subjects

Participants

The participants' demographic characteristics are presented in Table 3.

Table 3 Study I – demographic characteristics of the sample (n=16)

Participants	Setting	9 from nursing homes and 7 from care homes
	Sex	13 women, 3 men
	Mean age	34 years (range 27 - 63)
Profession	Registered nurses	8 (50%)
	Licensed practical nurses	5 (25%)
	Healthcare assistants	3 (25%)

Eight of the 16 participants were registered nurses, three of them working as middle managers. Eight of the participants were either licensed practical nurses or healthcare assistants. Although about half of the participants did not have Norwegian as their mother tongue, their knowledge of Norwegian was high. However, after conducting around ten interviews, a feeling emerged that the data did not provide a complex and detailed enough picture of the research subjects. To some extent, this was due to language difficulties. Three middle managers were then purposively sampled by the thesis author to provide a representation of their specific professional roles regarding the research subject. Moreover, they were chosen because of their high-level Norwegian language proficiency to ensure that all nuances of relevance to the investigated subjects were covered. Recruitment was thus consecutive and continued until the actual sample held adequate informative power to offer richness and depth to the analyses (Malterud et al., 2015).

5.3.2 Data collection

The interview protocol

Data were generated in May and June 2020 via semi-structured individual interviews conducted by the thesis author. Interviews allow both open and theory-driven data collection within the participant's local work context (Creswell & Poth, 2018; Kvale et al., 2015). This methodology was thus considered suitable for examining personal experiences about work environment influences and outcomes.

Based on the aim guiding the interview study, a semi-structured interview protocol was developed in collaboration between the authors of the study (see attachment no. 2). The core

of the protocol was four open-ended questions related to the aim of the study. Examples are: ‘What are the conditions in your working environment that increase your WE?’, ‘How do you experience the core characteristics of WE and PCP?’ and ‘Does WE play a role in the development of PCP?’. The interview protocol was refined through pilot testing on a registered nurse from a nursing home in another municipality in the southeastern part of Norway. Only slight modifications to the protocol were made based on the pilot.

Preparation and execution of interviews

Because of the ongoing coronavirus pandemic, the interviews were conducted online via Microsoft Teams during the least busy hour of the participants’ work shift. Arrangements were made so that they could sit distraction-free in a locked room in the work unit. The middle managers, who at the time were experienced with Microsoft Teams, were available to help the participants with technical issues whenever needed. During the interviews, the researcher sat undisturbed in her home office.

The conversations started with the researcher introducing herself and highlighting the overall aim of the PhD project, as well as the specific aim of the interview study. The central concepts of PCP, WE, and job demands and resources were briefly explained to lay the ground for a mutual basis of understanding. Furthermore, some introductory questions were asked about the participants' general considerations regarding their work life. The main body of the conversation was then conducted based on the interview protocol's four core questions. Through all the 16 interviews, these core questions remained unchanged.

The interviews lasted between 46 and 60 minutes and were recorded on audio tape with two external recording devices. They were carried out in a manner of conversation. In one-to-one interaction, the participants were able to express their views unencumbered and freely choose what they wanted to share with the researcher. The interviewer could then actively negotiate the meaning of the participant's views by asking follow-up questions relevant to the issues specified in the research questions. Every interview ended with a short conversation focused on the participants' immediate reflections and reactions to being interviewed. In this part, the audio recorder was turned off. To remember significant features of the conversation, the researcher took reflective notes shortly after each interview.

5.3.3 Analysis

Method of analysis

The aim of the interview study was twofold. Using the JD-R model as a theoretical tool, we wanted to better understand WE and its antecedents among nursing home staff. Furthermore, we wanted to examine the meaning of WE related to developing PCP, that is, examine PCP as an outcome of WE. Because some of these associations were previously understudied and others were not, the Stepwise-Deductive-Inductive (SDI) approach by Tjora (2017) was considered an appropriate method for analysing the data.

The SDI approach is based on an inductive principle with interpretations emerging from analysing the raw data. The coding develops by the principle of iteration, in contrast to the theoretical sampling of Grounded Theory (Glaser & Strauss, 1967). In addition to focusing on developing generic knowledge, the SDI approach also allows for applying existing theoretical knowledge and models to the data (Tjora, 2017). The method combines analyses of raw data with regularly theory-driven deductive feedback loops. Thus, it serves both to affirm already developed theoretical concepts and models and support the development of new ones.

Managing and organising the data

The interviews were successively anonymised and transcribed verbatim by the thesis author. The analysis process was based on an ongoing movement between an inductive and detailed line-by-line treatment and interpretation of raw data and a deductive theory-based understanding. Initially, the researcher experimented with using the software computer programme NVivo (version 12; QSR International) to organise data and support the analytical work. However, when proceeding further with the analyses, Microsoft Word was considered a suitable and more manageable tool. The analyses were independently carried out by the thesis author. However, to validate the analytical work and ensure trustworthiness, the principal supervisor was regularly consulted. The supervisor independently compared the results of the final analytical phase with the manifest text.

The analytical process

The analytical phases and results of the SDI approach are described in Table 4. The analytical process started with detailed inductive coding, based on a thorough reading of the interviews. Working through all transcriptions systematically, small parts of the text that conveyed meaning relevant to the researched topics were identified. These text fragments were then coded using the exact words and phrases that stood out in the text. For example, from the quote – '*When engaged, I feel more effective, and I use my creativity to sort out things for the patients*' – the resulting empirically code would typically be 'More effective and creative'. The first comprehensive analytical process resulted in about 550 empirically close codes, each authentically conveying what the participants said. In this initial phase, empirical-analytical reference points (EAR) were created. The EAR are elements of the empirical data indicating a possible development of analytical concepts and generalisable knowledge (Tjora, 2017). From a group of quotes similar to the one given above, an EAR could be the term – 'Revitalised'.

In the next analytical phase, 91 preliminary thematic groups were created and assessed more specifically against the research questions and theoretical assumptions. Some thematic groups were regarded as unsuitable for the research topics. They were therefore removed and thus not included in the further analysis. Guiding this phase of data structuring were the four theory-driven 'a priori' themes addressed by the questions in the interview guide. The final analytical phase resulted in 19 categories summarising the thematic essence of the analytical results. These categories were then structured into eight overarching broad

thematic concepts, forming the empirical-analytical basis for the interview study. Examples of overarching concepts are: ‘Improved group-level motivation and team spirit’ and ‘Paying attention to the whole person’.

The concepts resulting from the analyses were developed through idea generation and abductive reasoning in a collaborative process between the thesis author and the principal supervisor. In Paper I, relevant quotes are given to illustrate each of the concepts. Successively throughout the different phases of the SDI approach, the analytical results and interpretations were controlled through an incremental feedback strategy. Leading this process were SDI control questions, like: ‘Do the broad thematic concepts cover all the codes and are they coherent?’. The thesis author and the principal supervisor performed this assessment independently.

Table 4 Study I – results of Stepwise-Deductive-Inductive (SDI) approach (Tjora, 2017)

Phase	Purpose	Process	Result
1	Familiarising yourself with the data	Transcribing interviews, getting a sense of the whole database by reading the transcripts, noting down immediate reflections	16 transcribed interviews
2	Generating initial empirical close codes	Identify whole sentences or parts of sentences, specific terms, or small paragraphs in the transcribed interviews that stand out	550 codes, e.g.: ‘More effective and creative‘ and ‘Customise services’
3	Generating groups of coded text extracts	Inspired by theory, organise codes into groups based on mutual thematic meaning and consistency	91 preliminary thematic groups, e.g.: ‘Getting designated tasks and master them’ and ‘Asking what the patient needs’
4	Generating thematic concepts	Explicitly guided by theories and research aims, generate thematic concepts giving answers to; ‘What is this a case of?’, sort out codes and groups of codes with irrelevant meaning	19 thematic categories, e.g.: ‘Energised, effective, and robust’ and ‘Getting to know residents’ true self takes time’ 8 overarching broad thematic concepts, e.g.: ‘Elevated physical, cognitive, and emotional capacity’ and ‘Knowing the person’
5	Developing new theories	Explore the possibility of developing generic theories based on the generated thematic concepts	Not applicable

5.4 Study II – the questionnaire study

The questionnaire study focused on developing knowledge about how certain job resources and job demands influence the WE of nursing staff working in nursing homes. In particular, the study examined whether WE moderates or mediates the relationship between job demands and resources on the one hand and PCP on the other.

5.4.1 Sample

Participants

Of the 130 invited employees, 128 agreed to participate in the questionnaire study by signing a written consent form. During the last part of the two and a half hours plenary meetings arranged in the six work units, the participants were given a questionnaire which they were then asked to complete on-site. The demographic characteristics of the sample are presented in Table 5.

Table 5 Study II – demographic characteristics of the sample (n=128)

Gender	Female: 105 (82%) Male: 23 (18%)
Age (years)	<30: 16 (13%) 30-39: 38 (30%) 40-49: 34 (27%) 50-59: 29 (23%) >60: 11 (9%)
Profession	Registered nurses: 43 (34%) Licensed practical nurses: 60 (47%) Healthcare assistants: 25 (19%)
Employment status	Permanent: 122 (95%) Fixed-term contract: 6 (5%)
Position (full time or part time)	100 percent: 68 (53%) 50-99 percent: 50 (39%) 25-49 percent: 10 (8%)
Tenure (years at the current facility)	<5: 33 (26%) 5-9: 43 (34%) >10: 52 (41%)

Percentages rounded to the nearest whole number

5.4.2 Data collection

The questionnaire survey

In physical meetings per work unit, the participants answered a questionnaire that contained 149 items in total (see attachment no. 3). The participants spent from around 30 to 60 minutes completing the questionnaires. The thesis author and a co-worker from the municipal health and safety service were physically available throughout the data collection to offer the participants help if needed. For example, for those who experienced difficulties with the Norwegian written language, some of the terms and questions used in the questionnaire were explained and elaborated on. Immediately after completion, the questionnaires were delivered directly to the thesis author in sealed envelopes.

Measurements and variables:

Table 6 presents the variables included in the analyses of the questionnaire study and the specific instruments from which they originate. The main categories of information that were collected in the study concerned working environment conditions (job resources and job demands), WE, and PCP. Information about the demographic variables age, gender, profession, and tenure were also collected. Moreover, data on mental health and sickness absence were collected but not used.

Table 6 Study II – instruments and variables

Instrument	Concept level	Construct level
KIWEST 2.3	Job resources	Work being meaningful
		Social community
		Investment in development
		Job autonomy
	Job demands	Illegitimate work tasks
		Role conflict
		Role overload
UWES-9	Work engagement	
PCPI-S	Person-centred processes	Working with patients' beliefs and values
		Shared decision-making
		Engaging authentically in the person
		Sympathetic presence
		Providing holistic care

Job resources and job demands – KIWEST 2.3: Variables representing various job demands and job resources were selected from *the Knowledge-Intensive Work Environment Survey Target*, KIWEST 2.3 (Innstrand et al., 2015; Undebakke et al., 2015). This instrument has shown reliable and valid psychometric properties in knowledge-intensive work settings, such

as universities. Although the reliability and validity of KIWEST have not been specifically evaluated in groups of nursing staff, we concluded this tool to be adequate. A reason for this is that KIWEST is well aligned with the JD-R model (Bakker & Demerouti, 2007; Bakker, Demerouti, & Sanz Vergel, 2014) and to a large extent includes the variables that are most often used to test that model in various occupational settings. Furthermore, KIWEST is based on valid and standardised instruments that covers well known organisational and psychosocial working environment conditions. Examples of these instruments are *the Nordic Questionnaire on Positive Organisational Psychology*, N-POP (Christensen et al., 2012) and *the Copenhagen Psychosocial Questionnaire*, COPSOQ II (Pejtersen et al., 2010).

Four job resources and three job demands were selected from KIWEST 2.3. The selection of resource and demand variables used in the analyses was based on those most often included in research testing the JD-R model. To some extent, the variables also were selected based on the results of the interview study in the present thesis. The job resources included were; *social community* (strong relational connections among colleagues in the working unit), *job autonomy*, *work being meaningful*, and *investment in development* (an open, flexible, and innovative working unit). Job demands included were; *role conflict*, *role overload*, and *illegitimate work tasks* (having to perform work tasks that you think others should do or require too much of you). All job resource and demand variables were developed and analysed at two levels; on an individual variable level (*construct level*) and a composite measure level (*concept level*). Items were rated from 1 (strongly disagree) to 5 (strongly agree) on a five-point Likert scale.

Work engagement – UWES-9: The Norwegian version of *the Utrecht Work Engagement Scale*, UWES-9 (Nerstad et al., 2010; Schaufeli et al., 2006; Schaufeli et al., 2002), was used to measure WE. The nine-item version of the UWES was chosen as it is the most widely used (Bailey et al., 2017). Examples of items are; 'At my job, I feel strong and vigorous' (*vigor*), 'I am enthusiastic about my work' (*dedication*), and 'I feel happy when I am working intensely' (*absorption*). In our statistical analyses, all nine items were included in a composite measure, as recommended by Schaufeli and Bakker (Schaufeli & Bakker, 2010). Thus, this variable was only developed and analysed at a concept level. Using a seven-point Likert scale, items were scored from 0 (never) to 6 (daily).

Person-centred processes – PCPI-S: Person-centred processes (PCP) were assessed using a version of *the Person-centred Practice Inventory – Staff*, PCPI-S, translated and culturally adapted to a Norwegian context in a sample of nursing staff working in home care services, nursing homes, community acute care settings, and in a hospital (Bing-Jonsson et al., 2018). The questionnaire study focused on PCP as an outcome of WE. PCP is the domain in the Person-centred Practice Framework (McCance & McCormack, 2017b) that focuses specifically on the patient, including the activities of *being sympathetically present*, *engaging authentically*, *working with patient's beliefs and values*, *shared decision-making*, and *providing holistic care*. In the PCPI-S, PCP are assessed by 16 items which are thematically

grouped in line with the Person-centred Practice Framework. All 16 items were included in the questionnaire study. The variable of PCP was developed and analysed at the following two levels; an individual variable level (*construct level*) and a composite measure level (*concept level*). A five-point Likert scale was used to measure the items in the PCPI-S. The scale ranged from 1 (totally disagree) to 5 (totally agree).

5.4.3 Analysis

Power analysis

Determining the optimal sample size in a study is critical to ensure that the power is sufficient to detect statistical significance. In this project, an estimation of the sample size for the planned interventional study was conducted in close collaboration with a statistician. Consequently, a traditional power analysis was not conducted for the questionnaire study that utilized the baseline data. However, the formula n > 50 + 8m (where *m* indicates the number of independent variables) by Tabachnick and Fidell (2019), was used to assess the number of independent variables included in the planned statistical analyses. This formula indicated that a sample size of 128 participants was sufficient for a regression model that included five variables.

Treatment of data

Creating variables at different levels: Version 28 of IBM's Statistical Package for the Social Sciences (SPSS) was used to analyse the data. Data were entered into SPSS by the thesis author and checked for missing or abnormal values. Scale means were used to develop variables at a construct level. That is, item scores were aggregated to the level of theoretical constructs by summing the scores and dividing this sum by the number of items included in each scale. Before the calculation of scale means, negatively framed items were reversed. The twelve variables at a construct level are shown in Table 6. The five concepts that structured the construct variables were; *job resources*, *job demands*, *WE*, and *PCP*. The concept levels were developed by averaging across the scale means for each of the constituent variables (constructs).

Only the fully completed questionnaires were included when conducting the statistical analyses and calculating the mean scores. Because just three items were missing within the total dataset, this did not compromise the needed sample size. However, for the constructs *investment in development* and *role conflict* and the concept of *WE*, the statistical analyses were based on data from 127 and not 128 participants.

Check of assumptions and internal reliability: Preliminary analyses were conducted to ensure that the included variables did not violate any of the assumptions underlying the chosen statistical techniques; that is, normality, linearity, multicollinearity, and homoscedasticity (Tabachnick & Fidell, 2019). The internal consistency of the included variables was determined by calculating Cronbach's coefficient alpha (α) (Cronbach, 1951). This is the

most widely used approach to evaluate the internal reliability in a questionnaire, meaning how closely related the items included in the various scales are (Polit & Beck, 2020; Tavakol & Dennick, 2011). The Cronbach's *α* for the included variables ranged from 0.52 (role conflict) to 0.85 (WE). To describe the sample, mean, standard deviation (*SD*), and min. / max. were calculated (n = 128).

Statistical analyses

According to the JD-R model (Bakker & Demerouti, 2008), various working environment and personal resources influence the level of WE. Moreover, WE is assumed to play a crucial role in explaining how and why job and personal resources, on the one hand, are related to various types of outcomes, on the other. Thus, when examining these causal relationships, the need of a third variable (mediator) is justified by the JD-R model.

In the first step of determining the empirical relationship between all the included variables, a bivariate correlation analysis was conducted with variables at both construct and concept levels. In the latter case, the demographic variables – age, gender, profession, and tenure – were also included. To test whether WE mediated or moderated the effects of job resources on PCP, a simple mediation and moderation model was tested with variables at concept levels. For this, model four and one, respectively, in the macro called PROCESS 4.0 for SPSS (Hayes, 2018) was used. This is a regression-based statistical approach for mediation and moderation testing that does not require a statistical association between X and Y.

5.5 Study III – the review study

In Study III, a systematic literature review was conducted to get an overview of the existing research evidence on the antecedents and outcomes of WE among nursing staff providing healthcare services to older people living in nursing homes. Systematic reviews aim to answer an explicitly stated research question by synthesizing research evidence that fits predetermined eligibility criteria (Grant & Booth, 2009; Purssell & McCrae, 2020; Sutton et al., 2019). This involves a comprehensive search approach based on clearly defined inclusion and exclusion criteria specified in a formal pre-registered protocol. To outline essential elements of our systematic review process for the readers and reviewers, a study protocol was registered on the International prospective register of systematic reviews, abbreviated as PROSPERO [CRD42022336736].

5.5.1 Eligibility criteria and search strategy

The development of search strategy and eligibility criteria

In the initial phase, the study objectives and criteria for selection were specified according to the SPIDER tool (Cooke et al., 2012). The criteria for the selection of literature for the review study are presented in Table 7.

The eligibility criteria reflected the purpose of the review and were indicative of the literature searches and assessment. To be included, studies had to explore the associations between WE and its working environmental antecedents and outcomes among nursing staff exclusively working in nursing homes. Both public and private nursing homes were eligible for inclusion. Studies utilizing multidisciplinary samples were considered relevant if more than 80 percent of the participants were registered nurses, licensed practical nurses, and healthcare assistants. The studies had to be based on the JD-R model and assess WE on the level of the individual employee using the UWES (Bailey et al., 2017; Schaufeli et al., 2006; Schaufeli et al., 2002). Only peer-reviewed original empirical studies were eligible – either quantitative, qualitative, mixed methods, or multi-methods. Descriptive studies (cross-sectional, longitudinal, prospective and/or retrospective designs), explorative studies, case studies/series, and effect studies (baseline data) were included.

Table 7 Study III – criteria for selection of literature specified according to the SPIDER tool (Cooke et al., 2012)

Sample / **S**etting	Nursing home staff most directly involved in the care of older people
Phenomenon of **I**nterest	Work engagement
Design	Explorative, descriptive, and effect / interventional studies
Evaluation	Descriptions of work engagement and its antecedents and outcomes
Research type	Quantitative, qualitative, multi-methods, and mixed methods

Search strategy and literature searches

Developing a search strategy and searching the literature was a creative and iterative process in several phases. Two experienced specialist librarians working at the university library's systematic search service were involved in this process. To ensure consistency and transparency when searching for, selecting, evaluating, and synthesising relevant studies, *the Preferred Reporting Items for Systematic Review and Meta-Analysis*, PRISMA, 2020 Statement (Page et al., 2021) and *the Synthesis Without Meta-analysis in systematic reviews*, SWiM, guideline (Campbell et al., 2020), were used. Accurate information about decisions made in each stage of the literature searches was recorded to ensure a repeatable process by maintaining transparency.

The searches were carried out from April to May 2020 and updated in November 2020 in five electronic bibliographic databases. With regards to relevant research discipline, *Medline*, *PsycInfo*, and *CINAHL* were considered suitable. *Academic Search Premier* and *Scopus* were chosen to provide for interdisciplinarity. The searches were limited to papers published in Scandinavian and English languages from the year 2000 onward. This date limit was set given that the fully developed comprehensive JD-R model was first introduced around the year 2000. Grey literature was not included.

When developing a search strategy, the following three main conceptual search categories were derived from the research aims:

- Population: healthcare workers (equivalent: nursing staff)
- Context: long-term care facilities (equivalent: nursing homes)
- Phenomenon of interest: work engagement

The term 'healthcare workers' was operationalized to include registered nurses, licensed practical nurses, and healthcare assistants. 'Long-term care facilities' referred to nursing homes. Based on this structure, subject headings, corresponding controlled terms, and text words were mapped and added to the search string in four of the five selected databases. In this mapping process, we made sure to check that the definition of index terms and text words in the databases corresponded to what we were looking for. Because Scopus lacks controlled terms, this could not be done in that database.

Preliminary test searches in Medline on March 10th using only subject headings yielded few results. Therefore, we planned to combine the search terms in the conceptual categories – population and context – with Boolean operator OR for greater comprehensiveness. However, after including additional subject headings and text words and expanding the search to several databases, the total number of included literature increased considerably, as did the number of irrelevant studies. Thus, the three conceptual search terms were combined with Boolean AND in the final version. Information about the final search strategy, which was developed in Medline, is published on Figshare (Myrvold & Telle-Wernersen, 2022).

5.5.2 Search outcomes, screening, and quality appraisal

Search outcomes and screening

A total of 4,886 records were identified in the initial searches. These records were archived and further managed using Rayyan, freely available reference management software (Ouzzani et al., 2016). Means, the identified records were available for all the researchers involved in different stages in the course of establishing the data available for analysis. The screening process was conducted as a team effort with two researchers in each team looking at the same papers. In that way, the reliability of the systematic review was enhanced by reducing the risk of random error in the selection of papers.

A total of 1,836 duplicates were removed. The title and abstracts of the remaining 3,050 records were screened against the eligibility criteria. A total of 84 reports were read in full text and assessed for eligibility. Reports of uncertain eligibility were discussed within and across the two author teams sharing the screening load. The updated searches identified 334 unique and potentially eligible records after duplicates were removed. These were then assessed for eligibility according to the same three-stage screening procedure as the initial searches. Together, the initial and updated searches resulted in 16 included studies, proceeding to the next stages of quality appraisal and analysis. The PRISMA flowchart

displaying the screening process for the systematic review is presented in Figure 2 in Paper III.

Quality appraisal

The methodological quality of the included studies was assessed by the four reviewers in two teams using the Mixed Method Appraisal Tool (MMAT), version 2018 (Hong et al., 2018). Out of the 16 studies, 14 were quantitative, one qualitative, and one multi-method. MMAT was chosen because it is quality assured and developed for all types of studies (qualitative, quantitative, and mixed methods).

The critical appraisal was important to better understand the strengths and limitations of the included research. Through this systematic and balanced assessment, it became clear that the methodological quality differed across the studies – with respect to, for example, clearly presenting the aim of the work through research questions, providing sufficient information about the sampling strategy, transparently reporting judgements about the risk of bias in the case of a low response rate, and clearly describing the statistical analyses applied. These are central aspects of methodological quality that can affect the total body of evidence of the review and its internal and external validity (Purssell & McCrae, 2020). However, although the quality bordered on poor in some cases, none of the studies were found ineligible for that reason. This is in line with the recommendations in the MMAT (Hong et al., 2018). To make nuances of the quality appraisal more explicit, we considered calculating summary scores. However, this was not done, also in accordance with the MMAT.

5.5.3 Data abstraction and synthesis

Data abstraction

To synthesise and collate the findings of the included studies, the research team developed a form to identify and extract essential study characteristics. For this, we chose not to use a generic and predefined data extraction form, but rather developed a bespoke template. Based on the JD-R model and inspired by other researchers' published templates, this form was tailored to the specific review topic. The following study characteristics were sorted and tabulated: author, year, country, study design, aim(s) / objective(s), sample / participants, data collection method, antecedents of WE (job demands, job resources, and personal resources), outcomes of WE, and main findings. The form providing summary data from the 16 included studies is presented in Table 2 in Paper III.

Data synthesis

To present a critical summary of relevant research evidence, a descriptive and narrative synthesis without a meta-analysis of all the study results was applied. This involved a textual approach to the aggregative and interpretative analysis process, starting with a detailed scrutiny of the included studies. We considered the possibility of undertaking a meta-analysis

of effect estimates. However, this was not feasible due to the great diversity in antecedents and outcomes of WE measured.

The data extraction, as well as the synthesis of evidence, was performed by the thesis author. However, it was continuously discussed and verified by one of the co-authors of Paper III (EAB) throughout the process. In particular, for establishing trustworthiness and transparency, the tool that guided the descriptive and narrative analysis was SWiM (Campbell et al., 2020). This tool was developed to guide the reporting of the synthesis of findings from quantitative studies that lack data amenable to meta-analysis. Nevertheless, due to the limited and diverse research evidence in our review study, the certainty of the synthesised findings and heterogeneity in reported effects was difficult to assess.

5.6 Overall ethical considerations

Formal approvals

The research that the present thesis is based upon followed the principles stated in the Helsinki Declaration (World Medical Association, 2017). That is, ethical aspects of the research process itself and the specific target group were considered and addressed when designing the different studies. Permission to recruit participants from the research sites was obtained from the data protection official in the municipality.

The original interventional study, in which the data sets of the interview study and the questionnaire study originate, was approved by *the Norwegian Centre for Research Data*, NSD (now called the Norwegian Agency for Shared Services in Education and Research, Sikt) (see attachment no. 4). Thus, the research data were treated and stored in line with NSD's recommended principles to ensure participant anonymity and confidentiality. Approval for the interview study via Microsoft Teams and storage of audio recordings was also granted by the NSD. *The Regional Committees for Medical and Health Research Ethics* (REK) in Norway assessed the original study (Southeastern region; REK number: 2019/53664) and concluded that it was not within their scope (see attachment no. 5). For the literature review, ethical approval was not needed. Assessments of ethical aspects are not included in the quality appraisal tool (MMAT) that guided the last part of the judgement process of the included studies. However, the research designs and practices of these studies were discussed among the four reviewers.

A person-centred approach to research

The studies in this thesis were conducted according to the methods and values for person-centred research, with priority given to the persons involved in the research (Jacobs et al., 2017; McCormack, 2003; Sandvik & McCormack, 2018). The nursing staff were given thorough information about different aspects of the PhD project. Furthermore, they were given two to three weeks to decide on participation, which I believe is a reasonable amount

of time. For the interventional and interview study that were planned from the start, a signed written informed consent for participation was collected simultaneously. Later, the participants were informed by their unit managers about the termination of the interventional study and changes in the use of baseline data.

A basic premise for the nursing staff's consent to participate was that I would visit the working units successively to present study findings and support the development of the working environment and healthcare practice as an onsite consultant. My 25 percent position as a consultant in the municipal occupational health service throughout the PhD period made this a relevant opportunity. However, due to the coronavirus pandemic, this was not possible to carry out to the intended extent.

In the interviews and other meetings with the participants, they were treated with respect and the intention to create a comfortable setting, a mutually respectful dialogue, and minimise harm. A premise for this was me engaging all my senses and being reflexive towards personal pre-understandings that could potentially undermine the dialogical situation (Jacobs et al., 2017; Sandvik & McCormack, 2018). During the two and a half hours meetings that collected baseline data, additional personnel were hired to work in the units so that the participants would better relax and concentrate on answering the questionnaire. Regarding the planned pretest / post-test trail, the questionnaires were anonymized in advance with assigned identity numbers. The participants were thus not asked to sign the questionnaires and identify themselves. The answered questionnaires and the list with the participants' names and assigned identity numbers were stored in locked fireproof safes in different locations.

The double role of the researcher

Being able to act upon study findings can help to bridge the gap between research and practice. This adheres to one of the principles of a person-centred approach to research; that is, adopting a long-term commitment on acting on results (Jacobs et al., 2017; McCormack, 2003). In this respect, my proximity to and acquaintance with the research sites through my professional work role was beneficial. Nevertheless, this double role of me as a researcher could also lead to unwanted authority dynamics and dependency situations for the participants, jeopardising the ethical requirement of voluntary consent.

To embrace person-centredness in the research and avoid the participants feeling pressured to participate, I was honest about my double role as a researcher and consultant in the municipality. Furthermore, as recommended for person-centred research and to help build rapport and augment reciprocity, I clearly conveyed my intentions and motivations for the study and my lack of experience as a researcher (Creswell & Poth, 2018; Jacobs et al., 2017; McCormack, 2003).

6 FINDINGS

This chapter presents a summary of the main findings and the independent contributions that each study makes to the overall aim of the thesis. The presentation of the findings is structured based on the four secondary objectives of the thesis. Further details on findings are provided in the respective scientific papers. The last part of this chapter presents the overarching contributions of the three studies and shows how they form a coherent whole.

6.1 Study I – the interview study

6.1.1 Significance of the study

The interview study contributed to the thesis' overall aim by providing in-depth knowledge of the nursing staff's perceived experiences with WE and PCP, antecedents of WE, and the relationship between WE and PCP. Overall, the findings showed that the experience with WE and PCP were described by the nursing staff in line with the JD-R model (Bakker & Demerouti, 2007; Bakker, Demerouti, & Sanz Vergel, 2014) and the Person-centred Practice Framework (McCance & McCormack, 2017a), respectively. Moreover, the findings indicated that various working environment factors play a role in increasing WE and that WE could be of importance for the development of PCP.

6.1.2 Main findings

The main findings of the interview study are presented in Table 8, that is, a composite and extended version of the tables found in Paper I. In the table, the findings are structured in line with the analytical results from the various phases of the Stepwise-Deductive-Inductive (SDI) approach (Tjora, 2017). Although the participants represented various occupational groups and educational levels, there was no significant difference among them shown in the data. Data were therefore analysed together and presented as such.

<u>To investigate experiences with WE and PCP (objective 1)</u>
The nursing staff experienced that WE was manifest at both an individual and group level, with intrapersonal, interpersonal, and collective components. On the individual level, WE was described as a positive state with emotional, cognitive, and physical dimensions. The dimensions were characterised by, for example, *elevated physical energy and wellbeing*, *positive attitudes and enthusiasm towards work*, *increased resilience in demanding work situations*, and *more effective actions towards work tasks*. WE also was manifest at a collective level, characterised by *improved spirit and motivation in the working group*.

Table 8 Study I – main findings

Themes from interview	Broad thematic categories	Thematic subcategories	Theoretical terms
Experiences with work engagement	Elevated physical, cognitive, and emotional capacity	Energised, effective, and resilient, Positive attitude and emotions	Vigor, dedication, and absorption
Antecedents of work engagement	Satisfaction from individual work-related expectations being met	Support and positive feedback, Mastery and doing something meaningful, Develop / use personal skills and attributes	Social support, Job feedback, Coping, Meaning, Learning and development
	Improved group-level motivation and spirit	Relational effect of motivated colleagues, Be part of a cheerful, collaborative, and supportive working group	Crossover effects, sense of belonging
Characteristics of person-centred processes	Paying attention to the whole person	Practice it, but rather unconsciously, Provide friendly and affectionate togetherness, Customise care, Involve residents in care delivery to facilitate coping and self-help	Sympathetically present, Engaging authentically, Shared decision-making, Providing holistic care
	Knowing the person	Getting to know the residents' true self takes time, Observe, communicate, and put oneself in the residents' situation	Working with the resident's beliefs and values
Attributes of staff	Use all senses in encounters with residents	Patience and emotional control, Positive, in good mood, and attentive, Skilled in relation and communication	Professionally competent, Developed interpersonal skills, Knowing self, Commitment
Work engagement in the context of person-centred processes	Individual-level	Motivated and capable of doing 'the little extra', Wellbeing enhances willingness and capacity to truly connect with residents	Vigor, dedication, absorption
	Group-level	Supportive and effective staff relationships facilitate person-centred processes	Effective group functioning

One of the two broad categories that described the participants' experiences with PCP was *paying attention to the whole person*. Core activities that constituted this category were; being sympathetically present, facilitating resident participation in decision-making, providing professional expertise, and delivering tailored care services and assistance in activities of daily living. The other broad category describing PCP-experiences was *knowing the person* with core activities – such as appreciating and understanding each resident as an individual human being and spending time getting to know the residents' values and beliefs by carefully observing and talking to them. For nursing staff to contribute to effective PCP, the category – *using all senses in encounters with residents* – pointed to an essential attribute. This implied behaviours and skills, such as being positive, in emotional control, patient, attentive, skilled in verbal and non-verbal communication, and professionally competent.

To examine the antecedents of WE (objective 2)

In line with the JD-R model (Bakker & Demerouti, 2007; Bakker, Demerouti, & Sanz Vergel, 2014), the findings in the interview study indicated that various types of job resources promote WE because they play a role in the fulfilment of individual work-related expectations and team functioning. Important job resources were *positive job feedback*, *support from colleagues, managers, and residents*, *meaningful work tasks*, *mastering work tasks*, *utilizing and developing professional and personal competencies*, *having highly motivated and engaged colleague*s, and *being part of a collaborative team with shared goals*.

To examine PCP as an outcome of WE (objective 3)

A common view amongst participants was that WE promoted the development of PCP by improving individual work capacity and team effectiveness. On an individual level, the participants experienced that the characteristics of WE – such as *increased physical energy*, *a sharpened mindset*, and a *proactive attitude* – enabled a more detail-oriented and authentic approach to work tasks and encounters with residents. WE therefore enabled the nursing staff to do 'that little extra' for the residents. On a group level, the various positive behavioural characteristics of WE were experienced as helping improve professional interactions, collaboration, and relationships. This positive group-based climate enhanced the working group's effectiveness, which, in turn, enabled PCP.

6.2 Study II – the questionnaire study

6.2.1 Significance of the study

The questionnaire study contributed to the overall aim by providing empirical knowledge on antecedents and outcomes of WE in a relatively large sample of nursing home staff. The findings reinforced much of what is known about WE and its antecedents, that is, as conceptualised in the JD-R model (Bakker & Demerouti, 2007; Bakker, Demerouti, & Sanz Vergel, 2014). The findings also showed the interrelated nature of the domains of PCP and the care environment, as illustrated in the Person-centred Practice Framework (McCance &

McCormack, 2017a). Contrary to the findings in the interview study, the bivariate correlation between WE and PCP in the questionnaire study was low and non-significant.

6.2.2 Main findings

The main findings of the interview study are presented in Table 9.

To examine the antecedents of WE (objective 2)
The bivariate correlations with variables on concept level showed a high positive correlation between job resources and WE (r = 0.43) and a moderate negative correlation between job demands and WE (r = -0.30). Thus, according to the bivariate analyses, the four selected job resources – work being meaningful, social community, investment in development, and job autonomy – and the three job demands – illegitimate work tasks, role conflict, and role overload – appeared to be relevant antecedents of nursing home staff's WE. Furthermore, job resources were moderately positive correlated with PCP (r = 0.31).

Regarding the demographic factors of gender, age, tenure, and profession, only the latter correlated significantly with any of the other variables included in the bivariate analyses.

Table 9 Study II – main findings

Antecedents of work engagement	**Findings**
Job resources	Job autonomy, work being meaningful, social community, investment in development
Job demands	Role conflict, illegitimate work tasks, and role overload
Outcomes of work engagement	**Findings**
Person-centred processes	Work engagement was not significantly positively associated with person-centred processes Work engagement neither mediated nor moderated the relationship between job resources and person-centred processes

To examine PCP as an outcome of WE (objective 3)
Causality is an essential aspect for better understanding the concept of WE and its antecedents and outcomes. The findings based on interview data presented in Study I indicated a causal relationship between various working environment factors, WE, and PCP. Thus, the interview study justified and laid the foundation for developing different hypotheses guiding the statistical examination of moderated or mediated relationships in the questionnaire study.

In the bivariate analysis on concept level, PCP was significantly positively associated with job resources (r = 0.31). There was, however, no significant association between either job demands and PCP (r = -0.05), or WE and PCP (r = 0.10). The regression-based simple moderation model (Hayes, 2018), showed a statistically non-significant interaction term (β = 0.00; 95% *CI* [-0.17, 0.17]). That is, according to the findings in Study II, WE did not moderate the effects of job resources on PCP. Furthermore, based on the simple mediation model (Hayes, 2018), it was concluded that WE did not mediate the effects of job resources on PCP (β = -0.01, 95% *CI* [-0.07, 0.05]).

6.3 Study III – the review study

6.3.1 Significance of the study

The review study contributed to the overall aim of the thesis by providing an overview of available evidence on antecedents and outcomes of WE among nursing staff exclusively working in nursing homes. The findings showed that the most examined antecedent and outcome factors of WE were, respectively; *learning and development opportunities* and *social support*, and *person-centred processes*. Nevertheless, the study revealed that the evidence base on this specific research topic is sparse and ambiguous and therefore do not provide a basis for drawing firm conclusions. Because the types of antecedents and outcomes of WE examined were so different, a meta-analysis of effect estimates could not be undertaken. Table 10 presents the individual variables, groups of variables, and interventions that were examined in the included studies in the review study.

6.3.2 Main findings

<u>To provide a state-of-the-art overview of current knowledge on the antecedents and outcomes of WE (objective 4)</u>

According to the findings of the systematic review, the most widely used measure of WE was the nine-item version of the Utrecht Work Engagement Scale, UWES-9 (Schaufeli et al., 2002). Further, antecedents of WE were more often examined than outcomes. Through descriptive and narrative analysis, we identified forty-two thematically consistent variables that were explored in association with WE. Additionally, one interventional study focused on the effects on WE of a Continuous Improvement (CI) programme (Benders et al., 2019) and another of a positive psychology intervention (Kloos et al., 2019). Moreover, one study analysed various individual antecedents of WE in groups, named as follows; social resources, psychological resources, and physical resources (Simpson, 2010).

Antecedents of WE:

36 thematically unique antecedents of WE were identified. 16 of the antecedents belonged to the category of job resources, 13 were personal resources, and seven were job demands. Job resources were considered organisational, psychosocial, and physical conditions in the

working environment. Personal resources were described as internal resources attributed to an individual. Job demands were considered conditions in the working environment that have the potential to cause psychological and / or physiological strain on the employee.

Table 10 Study III – variables examined in association with work engagement

Antecedents of work engagement
Job resources
Social support – Motivated colleagues – Collaborative and inclusive ways of working (Social community) – Mastery at work – Meaningful work tasks – Job control – Work schedule control – Job autonomy – Learning opportunities – Development opportunities – Investment in development – Job feedback – The attractiveness of working in nursing home – The Quality of working life – Decision authority – Performance feedback – Financial rewards – Perceptions of workplace safety – The wards' service climate The CI[a] programme: Autonomy, Organising tasks, Data provision Physical resources: Recovery / Work-rest schedules, Access to materials and equipment Psychological resources: Leaders' influence on growth, recognition, and contribution Social resources: Co-worker relations, Support in work-role tasks
Personal resources
Sense of coherence – Mindfulness – Active coping – Healthy lifestyle – Intrinsic work motivation – Extrinsic work motivation – Job satisfaction – Willingness to learn good care – Confidence in my ability – Well-being – The sense of performing good care – Autonomous clinical judgement – Trait emotional intelligence – A positive psychology intervention
Job demands
Work-related family conflicts – Work and time pressure – Type of work schedule – Weekly working hours – Illegitimate work tasks – Role conflict – Role overload
Outcomes of work engagement
Person-centred processes – Intent to continue working – Affective occupational commitment – Organisational citisenship behaviours directed toward the organisation – Individual work performance – Employee creativity

CI[a] = Continuous Improvement

Job resources: Social support and learning and development opportunities were the most frequently explored job resources, each examined and reported as a promotor of WE in three different studies. Regarding the job resource of job feedback, only one of the two studies that examined that condition concluded this to be an antecedent of WE. Other job resources found to positively influence WE were; motivated colleagues, collaborative and inclusive ways of working, meaningful tasks, mastery at work, social community, job control, job autonomy, the perceived attractiveness of working in nursing homes, the quality of working life, the ward's service climate, and the work schedule fit with the nurse's private life.

Personal resources: Regarding personal resources, several types of variables were explored. Only job satisfaction was examined in more than one of the included studies. The two studies that examined this variable both reported it to be an antecedent of WE. Other personal resources identified as significant promotors of WE were; sense of coherence, mindfulness, intrinsic work motivation, the sense of performing good care, willingness to learn good care, well-being, confidence in my ability, trait emotional intelligence, and autonomous clinical judgement.

Job demands: Job demands found to be negatively associated with WE were; role overload, work-related family conflicts, role conflict, and work and time pressure. Only the variable work pressure was examined in more than one study.

Outcomes of WE:
Of the six unique outcomes of WE examined, PCP was reported to be significantly associated with WE in two of three studies. Other outcomes of WE identified were; employee creativity, the intention to continue working, and affective occupational commitment.

6.4 The studies' overarching contributions

The three studies contributed to the overall aim of the present thesis from different angles and methodological approaches. Both the interview study and the questionnaire study examined WE and PCP from a caregiver perspective. However, while the interview study had taken a qualitative approach, the questionnaire study drew from survey data to follow up on the different objectives of the thesis. The interview data from 16 participants in Study I contributed to a comprehensive understanding of the research topics stated in the overall aim and secondary objectives of the thesis. To some extent, the findings in the interview study served as a basis for specifying the research objectives of the questionnaire study, which was carried out among 128 nursing staff. The questionnaire study therefore contributed to the present thesis' objectives by exploring the perceptions, experiences, and behaviours related to WE and PCP in a larger sample of nursing staff.

Both the interview study and the questionnaire study contributed to building the knowledge base about WE and PCP among nursing staff working in nursing homes. This is important given the need to meet the various challenges facing the healthcare system. The findings from the interview study on the association between different working-environment factors on the one side, and WE and PCP on the other, were largely supported by the findings from the questionnaire study. However, there were conflicting findings in the two studies on how WE plays a role in the development of PCP. All this was reinforced by the findings from the review study. Being the first systematic review on this specific research topic, the study revealed various knowledge gaps with regards to understanding the concepts of WE and PCP among nursing staff exclusively working in nursing homes.

Based on the synthesis of evidence in the review study, it can be concluded that the existing evidence base for this research topic is too sparse to establish consistency and generalisability of research findings. Thus, the present thesis shows a need for more empirical studies on the antecedents and outcomes of WE among nursing staff working in nursing homes, and particularly on PCP as a patient-related outcome of WE. The interview study, the questionnaire study, and the review study therefore lay the foundation for future and more targeted research.

7 DISCUSSION

Overall, this thesis shows that the research evidence on WE among nursing home staff is scarce and ambiguous and that more empirical studies are needed to build a solid knowledge base. Regarding outcomes of WE, the thesis particularly provides insight into whether WE can play a role in facilitating PCP. The findings from this thesis contribute to the limited evidence base and provide a starting point for further knowledge-building. In the first section of this chapter, the key findings are presented and discussed according to the available research. The four secondary research objectives serve as a means of structuring the presentation. The chapter ends with some methodological considerations and final reflections on implications for practice and future research.

7.1 Exploring experiences with work engagement and person-centred processes

Work engagement

The nursing staff who participated in the interview study (Study I) all claimed to be engaged themselves. This agrees with the findings in the questionnaire study (Study II), which showed a high level of WE. The nursing staff described WE as a sense of efficient, energetic, and positive attachment to the work tasks and full ability to handle the demands of the job. Central characteristics of WE were improved cognitive, emotional, and physical individual capacity. The nursing staff's experience of high levels of WE agree well with the findings in a study based on data from 30 European countries. In that study, the baseline levels of WE among health and social care workers appeared to be high (Hakanen et al., 2018). Furthermore, in the interview study, the nursing staff's perceptions of WE aligned well with the core components of *vigor*, *dedication*, and *absorption*, as described by Schaufeli and colleagues (2002). WE was affirmed to be an activated positive state with behavioural, cognitive, and emotional dimensions. When engaged, employees invest all their cognitive, physical, and emotional energy in their work tasks on the basis that the work itself nourishes various aspects of the individual (Bakker, Demerouti, & Sanz Vergel, 2014; Schaufeli et al., 2002). WE thus manifests itself as a state of motivation and in a direction that is productive both for the employees themselves and the organisation (Byrne, 2022).

The studies included in the present thesis focused on WE as a three-component construct. There are perspectives, however, that brings uncertainty around Schaufeli and colleagues' (2002) operational definition of WE as implied by the UWES. Early on, based on the findings of a cross-national study of WE, Salanova and Schaufeli (2008) questioned whether *absorption* should be omitted from the UWES. Later, Schaufeli and Salanova (2011) and Bakker and colleagues (2011) also argued that *dedication* and *vigor* are the core components of WE, and *absorption* more a consequence of the state. In a recent systematic

meta-analysis, absorption showed a lower effect with the considered antecedent and outcome variables than vigor and dedication (Mazzetti et al., 2021). Examples of examined variables in that study are turnover intention, job satisfaction, and job commitment. Thus, doubt remains about Schaufeli and colleagues' (2002) definition of WE as a three-component psychological state, as operationalised in the UWES. Unfortunately, this was not a focus of the interview study and questionnaire study included in the present thesis.

The nursing staff in the interview study also described experiences of WE at a group-level, capturing factors such as a supportive and positive staff relationship, effective relational working processes, and a committed and enthusiastic collective effort in the work. It was evident from our findings that colleagues get inspired by and influence each other's behaviours. The positive group-level characteristics of WE were reinforced by the observable improved physical, emotional, and cognitive capacity of each engaged employee within the working environment. Thus, the findings from this thesis highlights that it is both how the individual employee and the working group feel and behave that ultimately provides the fuel for high individual performance and team effectiveness among nursing home staff. This is in line with previous research, showing that WE may cross over and influence colleagues and spouses (Bakker, Demerouti, & Sanz Vergel, 2014).

There are uncertainties about whether and how WE should be operationalised at individual in contrast to collective levels. Some researchers have argued that WE can be experienced, and therefore also should be conceptualised and measured, at a group-level (Salanova et al., 2005; Schaufeli & Salanova, 2011). Regarding person-centred practice in care settings, Dewing and McCormack (2015) highlight the limitations and inadequacy of Schaufeli and colleagues' (2002) definition of WE. They argue that Schaufeli's definition excludes the care receiver, only values cognition as a form of intelligence and way of knowing, and refers only to a psychological and cognitive process within the individual. For use in person-centred practice research, Dewing and McCormack (2015, p. 6) propose a revised definition of engagement that builds on and extends Schaufeli's definition: '… *engagement is characterised by the presence of vigor, dedication, and absorption*' [and] '… *is primarily a process that aims to achieve three overall outcomes – vitality, learning, and transformation*.' Further, Dewing and McCormack claim that their definition balances various ways of knowing and recognises that engagement is a holistic and embodied experience at multiple levels. Such an understanding of WE is somewhat consistent with what we found within the nursing home setting. Thus, our findings provide new perspectives that support the definition proposed by Dewing and McCormack. (2015) and challenge the one by Schaufeli and colleagues (2002).

Following Schaufeli's line of thinking, WE is recognised as an empirically and theoretically different concept from other closely associated concepts – such as *workaholism* (Bakker, Shimazu, et al., 2014; Schaufeli et al., 2008; Shimazu et al., 2015; Taris et al., 2010), *organisational commitment* (Hallberg & Schaufeli, 2006; Kim et al., 2017), *job involvement*

(Hallberg & Schaufeli, 2006), and *job satisfaction* (Alarcon & Lyons, 2011; Yildiz & Yildiz, 2022). Nevertheless, the evidence of the relationships between WE and other related concepts is ambiguous and does not clearly explain the mechanisms involved (Byrne, 2022; Schaufeli & Taris, 2014). For example, job satisfaction and organisational commitment are found to be antecedents of WE among bank employees (Yalabik et al., 2013). However, in a meta-analytic examination of 50 multi-professional samples by Cole and colleagues (2012), the two conditions were concluded as outcomes of WE. In the present thesis, occupational commitment and job satisfaction were analysed and found to be, respectively, an outcome and antecedent of WE among nursing home staff. According to Bailey and colleagues (2017), the temporal order of some of these concepts with regard to WE cannot be concluded. In the present thesis, the organisation of the included variables into antecedents and outcomes of WE was based theoretically on the JD-R model. However, this needs to be further investigated based on longitudinal studies.

Person-centred processes

From the nursing staffs' responses in the interview study, two core dimensions of PCP were evident – knowing the person and paying attention to the whole person. *Knowing the person* involves getting to know the resident's true self, which requires sufficient time and attention from the care provider. *Paying attention to the whole person* involves providing holistic care and affectionate and kind togetherness, customising healthcare services to multidimensional preferences and needs, involving the resident in care delivery, and enabling self-help and mastery. These findings agree well with the synergistic activities and processes that operationalise PCP in the Person-centred Practice Framework (McCance & McCormack, 2017b). Our findings from the interview study are essentially supported by the results of a recent review and meta-analysis of 30 studies from the residential LTC setting by Bradshaw and colleagues (2023). That study showed that increasing residents' experiences of autonomy and decreasing their experiences of being controlled is key to support their well-being. By this, the older people felt respected, heard, and nurtured (Bradshaw et al., 2023). Thus, the findings of that study and the present thesis confirmed that to know the person, provide holistic care, and facilitate shared decision-making is central to the development of PCP in the nursing home setting.

The findings in the questionnaire study showed a high level of PCP (a mean score of 4.09 on a Likert scale from 1 to 5). In the interview study, all the participants said they were familiar with the key activities and principles of person-centred care and thought that their care practice was well adopted to them. However, they also spoke of being somewhat unconscious of these principles and that they felt this was an under-communicated area in their working group. In an integrative literature review by Byrne and colleagues (2020), the authors claimed that although person-centred care is well known to nurses, it is yet an ill-defined and operationalised concept into practice. This is thus consistent with our findings from the interview study. The existence of different conceptualisations and lack of theory-driven methodologies within the field of person-centred healthcare are evident and have

undesirable consequences for practice and research (Edgar et al., 2020; McCormack, 2022). According to Edgar and colleagues (2020) the Person-centred Practice Framework provides a common language and shared insight and meaning that is important to establishing a person-centred practice and culture. The framework can thus be used to promote scholarship and research and improve the ability to properly evaluate impact in this area (Edgar et al., 2020). Our findings support the validity of the Person-centred Practice Framework in terms of the central aspects of PCP.

7.2 Examining the antecedents of work engagement

The interview study and questionnaire study considered various job resources and job demands as antecedents of WE. The findings from the two studies were consistent with previous relevant research. For example, Eldh and colleagues (2015) found that nursing staff in nursing homes are motivated by factors – such as performing tasks that are important to others, receiving positive job feedback, and experiencing personal growth based on strong connections to the residents. This concurs with the factors of meaningful work, job feedback, and investment in and opportunities for learning and development that were found to promote nursing staff's WE in the interview study and questionnaire study. Furthermore, a study among nursing home nurses in Japan showed that WE was positively associated with autonomous clinical judgement – that is, a constituent dimension of professional autonomy (Hara et al., 2021). In the two first studies in the present thesis, job autonomy was found to be a relevant antecedent of WE. Thus, the findings from this thesis show that to increase the WE of nursing home staff, managers should provide the employees with possibilities of personal and professional growth, optimise organisational cultures with employee involvement and job autonomy, and nurture relational aspects of the work.

According to a systematic review by Keyko and colleagues (2016) and an integrative review of reviews by Broetje and colleagues (2020), key job resources among nursing staff (mostly registered nurses) employed in general care settings (mostly hospitals) are; transformational leadership, supervisor support, fair and authentic management, interpersonal relations, professional resources, and autonomy. The most important job demands identified are; lack of formal rewards, work overload, emotional demands, physical demands (i.e. shiftwork and lack of possibilities for recovery and rest), and work-home interference (Broetje et al., 2020; Keyko et al., 2016). Overall, these findings match the job demands and job resources identified as important to the nursing home staff's WE in both the interview study and questionnaire study. Job demands found to be negatively associated with WE in the questionnaire study were; role conflict, illegitimate work tasks, and role overload. Among nursing home staff in the USA, greater occupational stress (job demands) was demonstrated to be associated with less personal accomplishment and more depersonalization and emotional exhaustion – that is, core dimensions of burnout (Woodhead et al., 2016). Job resources showing negative association with the burnout dimensions were; social support (from supervisor, colleagues, friends, and family), opportunity for nurturing (being responsible

for other persons' well-being), and reassurance of worth (acknowledgement of one's competence and abilities). Thus, among nursing staff in various healthcare settings, both job resources and job demands can affect employees' work-related well-being. Therefore, both the present thesis and existing research underpin the importance of developing a supportive and well-structured working environment. Moreover, based on the findings from this thesis, it is important to focus on balancing the job resources and job demands available to the nursing staff.

According to Moeke and Bekker (2020), some nursing homes struggle to balance the seemingly conflicting goals of meeting residents' preferences and the efficient use of resources. For nursing homes, nursing staff are by far the most valuable resource (Moeke & Bekker, 2020). Although there is no one-size-fits-all solution, effective and sustainable management of the healthcare workforce has common prerequisites in all countries (WHO, 2022b). Supportive environments that promote and maintain employees' WE should be developed by strategic (top-down) and proactive (bottom-up) initiatives aimed to facilitate changes in workplace dynamics (Björk et al., 2021). According to a meta-analytical review of longitudinal evidence by Lesener and colleagues (2020), interventions targeting organisational and managerial conditions are most effective for enhancing WE over time. Nevertheless, interventions to enhance WE have the greatest chance of being effective by identifying the most relevant job resources and job demands specific to certain occupations, demographics, and industry sectors (Bakker & Demerouti, 2008). In nursing homes, the organisational and environmental conditions identified in the interview study and the questionnaire study thus appear to be an appropriate place to start. This includes bolstering such factors as social support, professional and personal learning and development opportunities, feedback on the job tasks, and a collaborative and supportive working climate. Moreover, it includes reducing job demands such as, role overload and role conflict.

Regarding the antecedents of WE, several questions remain. This, for example, concerns whether job demands and job resources are negatively or positively related, and whether the relationship between demands and resources, on the one side, and WE, on the other, may depend on factors such as level of education, occupational sector, and occupations with low versus high status or prestige (Bakker & Demerouti, 2017). In two separate studies among nursing home staff, emotional work, opportunities to help residents in need, and work pressure were perceived to have both challenge and hindrance effects on WE (Bakker & Sanz-Vergel, 2013; Noesgaard & Hansen, 2018). The conditions that influenced those perceptions were occupational group and individual perceptions of the setting. Thus, the findings of existing studies support that having a clear idea on the role and function of each aspect of the job when applying the JD-R model is imperative. In the interview study and questionnaire study, doing something meaningful and helping others, were positively associated with the WE of nursing home staff. These conditions were, however, not examined in relation to specific individual, professional, or working environmental conditions.

According to Bakker and Demerouti (2017) this is a research problem that needs further investigation in various occupations and work settings.

Concerning the job demand of work overload that was examined in the questionnaire study, it is not clear whether it acts as a challenge or a hindrance demand. In a study among home healthcare nurses, Bakker and Sanz-Vergel (2013) found that work pressure was experienced as a hindrance demand. This is in line with the findings in the questionnaire study but contradictory to the common view that work pressure acts as a challenge demand for every occupational group (Crawford et al., 2010; Lepine et al., 2005). Lastly, in the interview study, having engaged colleagues was identified as an antecedent of WE. Bakker and colleagues (2014) argue that researchers should look more closely into how WE affects the observable behaviour of individuals. This is important, as behaviour may explain employees' performance at work and be transmitted to or imitated by working colleagues and marital partners (Bakker & Xanthopoulou, 2009).

7.3 Examining person-centred processes as an outcome of work engagement

All three studies that are part of this thesis examined PCP as an outcome of WE. Overall, the findings indicate that nursing home staff perceive WE as contributing to PCP and employees' person-centred care behaviours. Engageing personal qualities and the self is vital in person-centred care (McCance & McCormack, 2017b). Previous research has found that WE is associated with improved proactive strategic employee work behaviours, such as daily innovative behaviour (e.g., generating creative and useful ideas) (Orth & Volmer, 2017), intrapreneurship (e.g., employee venture and strategic behaviour) (Gawke et al., 2017), and extra-role and in-role task performance behaviours (Christian et al., 2011; Xanthopoulou et al., 2008). Moreover, systematic reviews among hospital nurses have shown that WE influences nurses' work effectiveness and performance, and thereby also has an impact on their perceived care quality (García-Sierra et al., 2016; Keyko et al., 2016). This aligns well with the findings of a more recent systematic review showing a relatively strong positive association between WE and the quality of care among healthcare workers (Wee & Lai, 2021). This supports our findings in that WE can play a role in the development of PCP.

According to the findings of a systematic review by van Stenis and colleagues (2017), the role of nursing staff in nursing homes has changed over the past two decades. Now, the care services in this setting are more oriented toward relations – building relationships with the older persons and providing high-quality person-centred care – rather than tasks – performance-driven standardisation of protocols and procedures. Thus, there is a strong focus on offering person-centred services, characterised by involvement of the users and adaptation of activities to their individual choices (Norwegian Ministry of Health and Care Services, 2018; van Stenis et al., 2017). This supports why focusing on approaches that can

improve PCP are relevant and necessary. The findings from the present thesis offer important insight into the relationship among personal and working environment conditions, employees' well-being (WE), and the development of PCP. This thesis shows that in encounters with residents, the nursing staff must use all their skills and senses – such as being in emotional control, attentive, professionally competent, and skilled in verbal and non-verbal communication. Moreover, job resources - such as a supportive and collabourative working group, job autonomy, and job feedback, and the nursing staff's well-being – can facilitate PCP. Thus, the findings from the present thesis support the central domains of 'prerequisites' and 'the care environment' in the Person-centred Practice Framework (McCance & McCormack, 2017b).

In a literature review by Meranius and colleagues (2020), multiple advantages of person-centred care were identified. Examples are improvement of patients' mental and physical well-being and health, interpersonal relationships and mutual interactions, cost-effectiveness (e.g., shortened hospital stays, reduced costs, and enhanced time efficacy), and working environment for staff (e.g., better psychological working climate and enhanced capacity to meet the patients' individual needs). In nursing homes, working in a person-centred way is highly appreciated by the workers and is identified as an antecedent of WE through the experience of increased learning, well-being, and vitality (Eldh et al., 2015; Vassbø et al., 2019). This is consistent with the findings of the interview study and questionnaire study included in the present thesis, which showed that helping the residents meet their expectations and needs gave the nursing staff a sense of meaningful work and thus increased their WE. Hence, the findings of the present thesis emphasise that person-centredness applied to nursing staff who deliver care services to older people is intrinsically related to effective workplace practices.

Although none of the participants in the interview study spoke of it, one should be aware of the possible disadvantages of person-centred care. Examples can be exclusion of certain groups (e.g., those who cannot or do not wish to be involved in healthcare decisions), increased costs (personal and financial), unfairness (excessive empathy to some and not others), insufficient consideration of staff as autonomous persons, and risk for compassion fatigue (Meranius et al., 2020). Moreover, one could question whether the mentioned changed role and focus of the nursing home staff is now a well-established lived practice, or if it mostly is described and operationalised only in policy documents. According to the findings from the interview study, there was a deficiency and unconsciousness in the practice and application of person-centred care among the nursing staff in the investigated nursing home units. Based on these findings, a more coordinated and conscious organisational approach is recommended for fostering person-centered services in nursing homes.

According to Handor and colleagues (2022), bachelor- and master-educated nurses play a significant role in promoting the changes that nursing home care is undergoing. Based on an integrative review, the researchers identified five areas related to nurses' facilitation role for

an effective and evidence-based workplace culture characterised by person-centredness and well-being for all. These were: 1) competent and supportive leadership, 2) learning cultures facilitated by team reflection on care practice, 3) effective and collaborative relationships within working groups facilitated by good communication and shared goals, 4) implementation of evidence-based protocols, standards, and guidelines, and 5) acceptance and support from colleagues when experiencing grief and loss of residents. The findings of the present thesis support the importance of taking environmental, organisational, and relational conditions into account when aiming for high-quality person-centred services in nursing homes.

Several factors have been identified as hindrances to the described transition of practice in nursing homes. Examples are elevated work-related stress among staff, employees' negative self-perception, absence of shared values, limited flexibility, inadequate opportunities for personal and team growth, deficient communication and negotiation skills, and insufficient managerial coaching (van Stenis et al., 2017). In the questionnaire study, the job demands – role conflict, illegitimate work tasks, and role overload – were not significantly negative associated with PCP. However, the job resources of – social community at work, work being meaningful, job autonomy, and investment in development – were positively correlated with PCP. Still, when planning care services in nursing homes, the findings of the present thesis support that attention should be given to various types of working environment conditions. When focusing on increasing the WE of nursing staff in line with the JD-R model, this comes as a natural consequence.

White and colleagues (2020) investigated the association between the working environment, the quality of care, nurses' burnout, and job dissatisfaction among registered nurses working in nursing homes in the USA. When the nurses perceived the working environment as good, they were significantly less likely to show symptoms of burnout and report job dissatisfaction. Interestingly, a good working environment also contributed to desired effects for the residents, such as fewer incidents of pressure ulcers, lower antipsychotic use, and fewer hospital admissions. Factors that contributed to the perception of a good working environment were; a strong relationship between nurses and physicians, a supportive nurse leadership, and sufficient staffing and resources. Thus, the study highlights that developing a good working environment is beneficial for both the nursing home staff and residents (White et al., 2020). The importance of the caring and physical environment to nursing home residents' care experiences were also suggested by the findings of a systematic review by Sion and colleagues (2020). Thus, the findings from existing research resonates well with those from the questionnaire study.

Cardiff and colleagues (2020) identified four areas that need attention to develop workplace cultures that facilitate the development of both high-quality person-centred care and a good working environment for employees. The areas are: 1) collective and relational leadership, 2) consistent and shared set of values, 3) active learning environments based on psychological

safety and creative and critical thinking, and 4) practice and service transformation based on what matters both to service providers and users. The areas resemble the findings of the present thesis in terms of the identified antecedents of WE among nursing home staff. Examples are – support from managers, a good atmosphere and fellowship between colleagues (social community), and job feedback to foster learning and professional development. Thus, this thesis and other studies demonstrate that upholding and reinforcing the concept of person-centred practice and culture, with an emphasis on well-being for all involved, remains essential in ensuring sustainable ways of working. The focus should be on privileging the person's unique experiences, values, and needs over organisational conformity in care delivery decision-making (McCormack et al., 2017).

The findings from this thesis regarding the association between WE and PCP were, however, ambiguous. In the questionnaire study, WE was not associated with PCP, whereas the interview study showed a positive association between the two variables. This agrees with the findings in a mixed-method study by van Bogaert and colleagues (2017), showing that nurses' perceived quality of care only to a limited extent was influenced by WE. In their critical comparative review, Edvardsson and Innes (2010) identified eight different tools developed for evaluating person-centredness in the long-termed aged care setting. Examples are the Person-centred Climate Questionnaire – Staff version (PCQ-S) (Edvardsson et al., 2009) and Patient version (PCQ-P) (Edvardsson et al., 2008), the Person-centred Care Assessment Tool (P-CAT) (Edvardsson et al., 2010), and the Person-centred Environment and Care Assessment Tool (PCECAT) (Burke et al., 2016). Since then, however, there have been insufficient validation studies of the different existing tools for assessing person-centred practice. Recently, a systematic review of reviews showed that measuring person-centredness and person-centred skills in healthcare workers remains challenging given how the concepts vary, as do the many measurement tools (van Dongen et al., 2023). Thus, a possible explanation for the conflicting findings in the present thesis may be related to the specific measurement chosen to assess PCP in the questionnaire study, that is, the Person-centred Practice Inventory – Staff (PCPI-S) (Bing-Jonsson et al., 2018; Slater et al., 2017).

Possibly, the participants in the interview study were not conscious enough of whether it was WE, or rather conditions in the working environment, that enabled PCP. Additionally, the participants might have described the association between WE and PCP in a somewhat idealised manner. This aligns with the findings from a qualitative study in a Swedish context which showed that various development work in public eldercare organisations is experienced as challenging by development leaders at different levels (Williamsson & Dellve, 2023). The study showed a gap between the strategic and operational levels, depending on the organisation's resources and size. Often resourceful top-down initiatives at the strategic level were followed by strained and not so resourceful approaches at the operational levels. Assigning a change agent in the organisation following through with development projects could address this problem (Williamsson & Dellve, 2023). Thus, that study supports the

findings of the present thesis in terms of possible strained implementation abilities of person-centred practices at operational levels. Additionally, there can be a dysfunctional professionalism and culture of employee silence within healthcare (Montgomery et al., 2023). Withholding organisational and professional information can hurt the quality of care and patient safety, as well as the mental and physical well-being of all involved. Thus, promoting healthy organisational cultures characterised by openness, sensemaking, and team psychological safety through 'speaking-up' training and supportive leadership behaviours and styles is essential (Montgomery et al., 2023). To enable the shift towards person-centredness in healthcare organisations, it is critical to train healthcare workers to be entrepreneurial and thus facilitate the changes needed (Phelan et al., 2020). This, for example, concerns to advice on changes in the development of organisational policy and practice and process and outcome measurement.

7.4 Providing a state-of-the-art overview of current knowledge on the antecedents and outcomes of work engagement

The review study that is a part of this thesis is the only existing study that systematically reviews and synthesises previous research on WE among nursing staff exclusively working in nursing homes. Among the 16 studies included are the interview study and questionnaire study. The main finding is that the existing evidence base on WE among nursing home staff is too sparse for establishing consistency and generalisability of research findings. Among the variables examined, there was a great variety of psychosocial and organisational working environment conditions. Almost all conditions reported were assessed in only one of the studies. Thus, the research on WE in the nursing home setting is limited and the conditions examined are heterogeneous.

7.4.1 Antecedents of work engagement

In professional nursing practice, the antecedents of WE are more often investigated than outcomes (Keyko et al., 2016). This corresponds with the findings in the present thesis among healthcare assistants, licensed practical nurses, and registered nurses employed in nursing homes. In the review study, 36 conditions were examined as antecedents of WE and six as outcomes. The conditions identified were mostly well known from the JD-R model (Bakker et al., 2008). Nevertheless, the overall organisation of conditions into *job resources*, *personal resources*, and *job demands* vary greatly, as do the thematic organisation of subgroups within the main categories (Broetje et al., 2020).

Based on the 77 conditions identified as antecedents of WE and 17 as outcomes primarily among nurses working in a hospital setting, Keyko and colleagues (2016) developed the Nursing Job Demands-Resources (NJD-R) model. In the NJD-R model, the antecedents of

WE are thematically categorised into five main groups; *organisational climate*, *personal resources*, *job resources*, *professional resources*, and *job demands*.

Job resources

In the systematic review upon which the NJD-R model builds, the job resources of *interpersonal- and social-relations* were found to be the most investigated (Keyko et al., 2016). This corresponds well with our findings in nursing homes. Interpersonal- and social-relation resources that we found to be associated with WE are; social support from managers and colleagues, the perceived attractiveness of working in nursing homes, and co-worker relations. According to Keyko and colleagues (2016), the main category of *professional resources* was the second most investigated. Examples of conditions they included in that category are; challenge and professional growth, job autonomy, and professional practice environment. This also corresponds well with the findings of the review study included in the present thesis. The findings showed that conditions – such as learning and development opportunities, access to materials and equipment, job autonomy / job control, performance feedback, the ward's service climate, and organisation of tasks – were associated with the WE of nursing home staff.

The job resources that were found to be related to WE in the present thesis somewhat resembles the working environment conditions that Backhaus and colleagues (2021) identified as important to position, attract, and retain nurses in nursing homes. The conditions these researchers identified are; role content, role clarity, role model availability, possibilities for professional learning and development, a match between personal and professional skills and actual work, support from managers, a positive image of working in nursing homes, and adequate salaries (Backhaus et al., 2021). For nursing assistants working in nursing homes, what is found to be important to their job satisfaction and provision of person-centred care are; environmental and organisational support, a positive work climate, and a positive attitude to and a good relationship with their managers (Wallin et al., 2012). Thus, the findings of the two studies align well with the relational and professional resources identified in the present thesis as relevant antecedents of WE.

Focusing further on the existing research evidence from nursing homes, the findings of an integrative review showed that effective manager supervision of registered nurses influence outcomes on multiple levels – resident, healthcare assistant, and organisational (McGilton et al., 2016). Effective supervisory performance of registered nurses can be expected to reduce healthcare assistants' turnover, intentions to leave their job, and work-related stress. Moreover, it can improve the registered nurses' job satisfaction, decision-making, and effectiveness. Lastly, it contributes to enhanced resident satisfaction. The importance of a well-designed mentoring programme for increased organisational capability to retain and develop new knowledge in healthcare organisations was emphasised by the findings of a large-scale qualitative study in Sweden (Wikström et al., 2023). The study showed that relational structures between senior and junior employees – such as a trusting and

supportive relationship – are essential to enable learning capabilities for future practices. Moreover, workplace conditions – such as possibility to spend enough time together and sharing work practices – also play a crucial role (Wikström et al., 2023).

Surprisingly, conditions – such as structural empowerment and managers' leadership styles – was not investigated as antecedents of WE in any of the empirical studies included in the review study that is a part of the present thesis. However, the review study showed that social support from managers and colleagues was the most frequently examined condition, along with learning and development opportunities. The importance of social support in relation to increasing employee WE was suggested in a meta-analytic review of longitudinal evidence among different professional groups by Lesener and colleagues (2020). In that study social support was the most examined condition and found to be a time stable group-level antecedent of WE. Nevertheless, conditions at the organisational level contributed the most to employees' WE. Organisational-level resources concern the organisation, design, and management of the work. Examples are; job autonomy, job control, material resources, development opportunities, involvement in decision-making, and role clarity (Lesener et al., 2020). All of these are well-known conditions from the findings of the present thesis.

Personal resources

In the NDJ-R model (Keyko et al., 2016), personal resources are organized into the thematic subgroups of; *relational*, *psychological*, and *skill*. In our review study, no relational resources – such as social intelligence and trust in manager – were identified. This is somewhat surprising, as relational resources may be essential to WE and the overall working climate. However, skill resources found to positively influence nursing home staff's WE were; autonomous clinical judgement, the sense of performing good care, and willingness to learn good care. Moreover, the review study identified multiple psychological resources that were positively associated with WE, as did the study by Keyko and colleagues (2016). Examples from the review study included in the present thesis are; job satisfaction, well-being, sense of coherence, intrinsic work motivation, mindfulness, trait emotional intelligence, and confidence in own abilities. The findings of a recent systematic review and meta-analytical synthesis of nursing research support that job satisfaction as a psychological resource is positively associated with WE (Yildiz & Yildiz, 2022). The direction of this relationship, however, could not be concluded.

It should be mentioned that all the personal resources reported by Keyko and colleagues (2016) were different from those identified in the review study that is a part of the present thesis. This indicates that multiple personal resources may act as antecedents of WE among nursing home staff. The personal resources assessed in the review study should thus be considered supplements to those described in the NJD-R model.

In a longitudinal study among nursing home nurses, job resources were found to be more important to employees' well-being than personal resources (Peters et al., 2016). The

longitudinal study by Xanthopoulou and colleagues (2009a), however, among employees in an electrical engineering company, showed cycles of positive, mutual reinforcement between WE, job resources, and personal resources. The job resources included in that study were – autonomy, performance feedback, opportunities for professional growth, and social support – all well-known conditions from the review study that is a part of the present thesis. The personal resources included were; organisational-based self-esteem, self-efficacy, and optimism (Xanthopoulou et al., 2009a). The only condition in our review study reflecting any of these conditions is confidence in my ability, which was identified as positively associated with WE. Gawke and colleagues (2017) also found a positive gain cycle between employee intrapreneurial activities (job resources), self-efficacy, optimism, and ego-resilience (personal resources), and WE. This means that increasing the level of either one of these conditions leads to mutual gains in the others. Thus, the findings of these studies supported the Conservation of Resources (COR) theory and the idea of gain spirals (Hobfoll, 1989). This is important knowledge, although it was not a focus in the studies in the present thesis.

Job demands

Working environment conditions – such as time pressure, psychological workload, and physical workload – are described as substantial predictors of nurses' wish to leave their job in home nursing and nursing homes. This is especially evident among the younger nurses in nursing homes (Bratt & Gautun, 2018). In the review study in the present thesis, the job demands of role conflict, role overload, work and time pressure, and work-related family conflicts were found to be negatively associated with WE. Keyko and colleagues (2016) structured job demands into the thematic subgroups of; *physical and mental demands*, *work pressure*, *adverse environment*, and *emotional demands*. Conditions included in the first group were most assessed (e.g., shiftwork and hours worked per week), followed by conditions representing work pressure (e.g., indirect patient care and workload). These findings support those from our review study in the nursing homes setting. However, Keyko and colleagues (2016) found conflicting results regarding the various job demands categorised as physical and mental demands and work pressure. One possible explanation is put forward by Brotje and colleagues (2020), who state that because different organisations of the antecedents of WE exist, it is difficult to synthesise findings and draw conclusion across studies. This corresponds with our experience, as we found it somewhat challenging to organise and synthesise the findings in the review study. Thus, for future research on WE within the healthcare setting, we suggest building on and enriching the findings related to the NJD-R model.

7.4.2 Outcomes of WE

In the NJD-R model outcomes of WE are divided into three categories; *professional*, *performance and care*, and *personal* (Keyko et al., 2016). Only three of the in total four personal outcomes identified in our review study were positively associated with WE. These conditions are; employee creativity, affective occupational commitment, and intent to

continue working. In our review study, two performance and care outcomes were identified – that is PCP and individual work performance. Only PCP were found to be positively associated with WE. This is commented on earlier (see 7.3). Our finding concerning the performance and care outcome of employee creativity is supported by the results of a study by Orth and Volmer (2017). Their study showed that the daily levels of dedication, vigor, and absorption in one's job roles were related equally strong to daily self-reported innovative behaviour.

In the substantial work of Bailey and colleagues (2017) based on multi-professional and sectorial samples, a robust evidence base was identified on the positive association between WE and different types of job performance. Examples are; task-, organisational-, and extra-role performance. This is contrary to our findings among nursing home staff, showing that individual work performance and organisational citisenship behaviours directed towards the organisation were not significantly positively associated with WE. A recent longitudinal study by Gürbüz and colleagues (2023) among a multi-professional sample investigated the possible mediating role of WE between sustainable employability and the work outcomes of job satisfaction and task performance. Sustainable employability concerns individual and working environmental capabilities and conditions that enable employees to realise tangible opportunities and achieve valuable work goals now, and in the future, while at the same time safeguarding their well-being and health. Examples of such capabilities and conditions are; physical abilities, a supportive social setting, involvement in important decision-making, and being provided with work opportunities to fulfil valued goals. Sustainable employability was found to be a significant antecedent of task performance over time, but not job satisfaction. Moreover, the relationship between sustainable employability and task performance was mediated by WE (Gürbüz et al., 2023). Thus, that study acknowledges the importance of building suitable and enabling working environments that encourages and supports the development of optimal employee well-being and functioning. This corresponds well with the findings of the review study included in the present thesis. Thus, the findings of this thesis emphasise the important relationship among environmental and personal conditions, WE, and various positive outcomes with regard to nursing staff working in nursing homes.

7.5 Methodological considerations

When planning and carrying out the studies in this thesis, the aim has always been to maintain high methodological quality. The methods for data collection and analyses have been chosen primarily based on the hypotheses and research questions presented in the individual papers. It is, however, necessary to assess the various methodological choices in terms of their strengths and limitations. Because the quality of the methodologies and samples applied in the studies impacts the validity of the conclusions, that will be discussed in this section.

Study I – the interview study

The seminal work by Morse and colleagues (2002), building on another seminal work by Lincoln and Guba (1985), gave meaning to the concept of *rigor* within qualitative research. Rigor concerns verification strategies and criteria for establishing *reliability* and *validity*. In qualitative research, reliability is about the idea of data adequacy, which makes consistent support for one's analysis across study participants possible (Morse, 2015; Spiers et al., 2018). Thus, reliability reflects the fit between the research and the actual phenomenon. Validity is about data appropriateness, which enables an accurate account of participants' experiences within and across the immediate environment. To ensure robust results, the researcher is responsible for paying attention to the various aspects relating to reliability and validity throughout the research process. Examples of strategies that helps establishing rigor in qualitative research are; *persistent observation and prolonged engagement*, *inter-rater reliability*, *debriefing or peer review*, *development of a coding system*, and *clarifying researcher bias* (Morse, 2015; Spiers et al., 2018).

The interview study had an explorative qualitative design (Polit & Beck, 2021). The sampling strategy may have had an impact on information, credibility, and inter-rater reliability (Creswell & Poth, 2018; Morse, 2015). The nursing staff were informed that participation in the study was voluntary. Still, all 16 employees asked by the units' middle managers to participate accepted the invitation. It might be that the nursing staff felt obliged and somewhat pressured to participate by their managers asking them. However, it might also be that the nursing staff had trust in me as a researcher based on our familiarity from the information meetings about the PhD project and from the collection of baseline data. With increased trust, data will become more valid because more is revealed (Morse, 2015).

Conducting face-to-face interviews using Microsoft Teams worked surprisingly well. The participants were open and generally very willing to share their experiences. This agrees with Creswell and Poth (2018), who claim that data collection via a web-based platform can help to create a comfortable and nonthreatening environment, providing a more in-depth reflection on the discussed topics. To invite the nursing staff to open up, general questions were asked about their working situation at the start of the interview. The in-depth knowledge I have about the research topic improved my ability to ask relevant questions that helped the participants to explain crucial issues. However, because of my knowledge and preunderstandings, it was sometimes difficult not to get too involved in the participants' reflections. In retrospect, I realise I on some occasions might have intervened too much. This concerns the possibility, for example, that I sometimes introduced terms and thoughts that I am uncertain whether the participants had thought of themselves.

During the conversations, I made sure to be more of a listener than a frequent speaker. Moreover, I tried to remain objective and impartial based on a critical distance to the topic and interviewees. However, there is no doubt that my motivations for conducting the study, knowledge and assumptions, and personal and professional background influenced the

research process to some extent. This emphasises the important role of *reflexivity* in research (Malterud, 2017). Due to my professional background and employment in the municipality in which the research took place, I quickly gained access to the nursing homes and earned the confidence of the managers and participants. Thus, I was not regarded as a 'stranger in a strange land', but as an 'insider' (Lincoln & Guba, 1985, p. 302). Nevertheless, being an 'inside' investigator can be risky regarding the type of information one receives. The information can, for example, be contentious and sensitive and thus put me in an awkward situation. Being an 'inside' investigator may also raise issues of power imbalance between the persons being studied and the researcher (Creswell & Poth, 2018).

As recommended by Morse (2015) when conducting semi-structured interviews, to increase the validity and certainty of the findings, a coding system was established at the beginning of the process using the Stepwise-Deductive-Inductive (SDI) approach (Tjora, 2017). However, as a researcher, I was inexperienced in analysing qualitative data, as well as with using the specific analytical method chosen. Thus, many valuable discussions were carried out between me and my supervisors about the various analytical steps and the development of codes and thematic meaning. This is what Morse (2015) refers to as debriefing and peer review, with the aim of preventing bias. According to Malterud (2017), reflecting upon the appropriateness of the chosen methods for qualitative analyses is an important aspect of validity. The rationale and reasons behind the choice made in this regard is described in the section 5.3.3 of the Materials and Methods chapter. Additionally, to clarify researcher bias when analysing the data, I consciously searched for experiences and opinions in the transcribed material that challenged my own thoughts and thus did not confirm my preconceptions (Morse, 2015).

Lastly, a limitation of the interview study is that the residents' perspectives were not collected to broaden the understanding of the importance of WE in the context of the development of PCP. It might be that the nursing staff were describing WE and the provision of PCP in a somewhat idealised and theoretical manner. Moreover, because the interview study was carried out in a single municipality in southeastern Norway and among only 16 employees, the generalisability of the findings may also be limited. However, the range of generalisation is not a matter of judgement from the researcher but from the part of potential users of the information (Kennedy, 1979; Lincoln & Guba, 1985). The potential users must thus determine whether it applies to their own situation based on the thick description of the context and situation the study findings was found to hold.

<u>Study II – the questionnaire study</u>

Importantly, the questionnaire study provided new and extended knowledge about antecedents of nursing home staff's WE and the development of patient-related outcomes in nursing homes. However, by being based on data collected at a single point in time, the causal relationship between the conditions being investigated could not be concluded. Additionally, Sonnentag (2011) raises questions to weather WE should be assessed on a

general level in cross-sectional studies due to the strong influence the nature of the different work tasks has on engagement.

Only two out of the in total 130 invited employees declined to participate in the planned interventional study, which was later converted into a cross-sectional study based on baseline data from questionnaires. The low drop-out rate may raise questions as to whether the nursing staff felt pressured to participate. However, questionnaires that are personally distributed more often achieve good response rates (Polit & Beck, 2021).

The measurements included in the questionnaire study were considered to have good psychometric properties (Polit & Beck, 2021). The three constituent constructs of WE were measured on a composite level using the UWES-9 (Schaufeli et al., 2006). According to Bailey and colleagues, (2017), studies using the UWES most often measure WE as one higher-order (composite) construct. Nevertheless, there are still doubts about how the instrument should be used and about its basic structure, which stems from the operationalisation of WE as a three-dimensional construct (Bailey et al., 2017). In a literature review of 21 studies focusing on capturing the state of WE by the UWES, Kulikowski (2017) found conflicting evidence. In about a third of the included studies, the three-component structure of UWES was found superior. In another third of the studies, a one-component (composite) structure was concluded as the preferred one. The last third of the studies, concluded the two different structures of the UWES to be equivalent. Based on the findings, Kulikowski (2017) recommend using UWES-9 as a composite measure in practical applications given its solid root in the Job Demands-Resources model (Bakker & Demerouti, 2008) and easy interpretation and predictive validity to well-being and health. With regard to the ambiguous study findings, Kulikowski (2017) did, however, raise the question whether UWES is an ideal instrument for WE measurement. Thus, in the questionnaire study, measuring WE according to its three-component structure could have contributed to other and more nuanced findings – for example, in terms of the association between WE and the development of PCP.

When interpreting the validity of the findings of the questionnaire study, there are important considerations to be made. The available sample was considered suitable to reflect key characteristics of the population under study. Because data were collected from a multi-professional group of nursing staff, the findings showed a broad range of experiences related to WE and PCP. Still, the generalisability of the findings may be limited as the study was based on a convenience sample and carried out within a small geographical part of southeastern Norway. Moreover, when it comes to healthcare assistants employed in nursing homes in Norway, the level of education, professionalisation of the work, financial compensation, and work-related benefits are higher than for those who work in the same setting in, for example, Great Britain and the United States (Laxer et al., 2016).

There may also be issues of common method bias, as the questionnaire study relied on self-report data (Andersen & Mayerl, 2017; Charles & Dattalo, 2018). Theorell and Hasselhorn (2005) support the value of cross-sectional studies and self-report measurement methods for health and psychosocial conditions in professional settings and groups that have not previously been properly investigated. However, when examining complex psychosocial concepts, it can be considered a limitation of the questionnaire that it only mapped predefined themes and did not allow the nursing staff to provide any additional information. Asking the residents about their experiences could also have contributed to a greater understanding of the phenomenon of interest.

According to Polit and Beck (2021), a pilot test of the questionnaire may be considered to test the combination of different instruments and ensure a proper layout. Regarding the questionnaire used, it was pilot tested on a registered nurse and a licensed practical nurse working in two nursing homes that were not included in the present PhD project. Neither of the two had Norwegian as their mother tongue. Since it took them around 45 minutes to complete the questionnaire, we considered the possibility of reducing the total number of items. However, this was decided as difficult and inadvisable due to methodological considerations, such as internal consistency measured by Cronbach's alpha. Thus, no adjustments were made to the total package of questions.

Study III – the review study

The review study provided a synthesis of the existing research on WE among nursing home staff. The literature searches, on which the study was based upon, were carefully designed and thoroughly conducted to find as many relevant studies as possible. It can be considered a limitation of the review study that we did not include grey literature. We did not manually search other relevant literature, such as reports, government documents, and conference proceedings. The decision was made based on issues related to the quality of grey literature, managing a vast number of identified records within a strict time frame, and the fear of detracting from replication due to personal and nuanced judgements about what to include.

Following the PRISMA 2020 Statement (Page et al., 2021) and the SWiM guideline (Campbell et al., 2020), as well as mobilising a team of four reviewers, provided us with the best available research data to examine the antecedents and outcomes of WE among nursing staff working in nursing homes. The use of the MMAT (Hong et al., 2018) to assess eligible studies also helped to strengthen the quality of the findings. As the assessment criteria of the MMAT are as comprehensive as other tools developed exclusively for either qualitative or quantitative methods, it was considered appropriate in terms of quality. However, as most of the 16 included studies applied quantitative methods, we could have chosen other designated tools.

Overall considerations, studies I-III

Driven by the same overarching aim, all the studies included in this thesis explored the antecedents and outcomes of WE among nursing staff working in nursing homes. However, they did so from various perspectives and methodological approaches, each serving a different purpose. Despite some methodological limitations, I consider the main strength of the present thesis to be that it uses a combination of qualitative and quantitative methods. By this, the studies included complemented each other and provided both new and extended knowledge of WE in the nursing home setting.

Study I, the interview study, provided thick and rich data about the nursing staff's contextual experiences with WE and PCP. This gave me as a researcher an in-depth understanding of the central topics in the present thesis. Study II, the questionnaire study, provided me with the opportunity to build on and expand the scope of the interview study in a larger sample. This also somewhat strengthened the possibility of generalising the thesis' findings. Finally, Study III, the systematic review, summarised and synthesised the findings from the first two studies together with other existing literature. Thus, the review study presents a current picture of the state of research on the antecedents and outcomes of WE among nursing staff exclusively working in nursing homes. To the best of my knowledge, this has never been done before.

Using a multimethod design enabled a more complex understanding of a topic that cannot be achieved by a single method. Moreover, it challenged me as a researcher and gave me the opportunity to learn different research methods. However, to compile and synthesise data from studies applying multiple methods can be difficult. This relates to the significant difference in the studies' theoretical foundations and types of empirical data. It requires different skills and knowledge to analyse data from qualitative interviews compared to quantitative data from questionnaires. This may have negatively impacted the convergence and correspondence between the findings in the different studies. At least it challenged me as a novice researcher.

A possible explanation for the conflicting findings between the interview study and questionnaire study in terms of the relationship between WE and PCP might lie in the method of data collection. According to the systematic review by Wee and Lai (2021), data source (the method for data collection) is a significant moderator of the relationship between WE and patient quality of care. That study showed a stronger relationship between WE and the quality of care when the latter was measured via self-assessments (Wee & Lai, 2021). It was the interview study, applying a face-to-face data collection method, that found a positive association between WE and PCP. Moreover, the interview study took place during working hours. It might be that the nursing staff chose to express their positive attitudes and thoughts in fear that the results could be visible to managers and colleagues. Hence, the face-to-face data collection method may have contributed to social desirability bias, that is, people's

tendency to portray a favorable image of themselves in self-report measures (Charles & Dattalo, 2018). According to Andersen and Mayerl (2017), socially desirable response behaviour appears frequently in social sciences and may contribute to conflicting findings in research.

7.6 Implications for practice and research

This thesis provides sufficient evidence to confirm that WE among registered nurses, licenced practical nurses, and nursing assistants working in nursing homes depends on several conditions related to both the working environment and personal characteristics. Examples are; social support from colleagues and managers, learning and development opportunities, job autonomy, confidence in own abilities, the sense of performing good care, and work and time pressure. Moreover, the review study included in the present thesis identifies increased intention to continue working and affective occupational commitment as outcomes of WE. These findings are supported by the results of a recent systematic review, showing that the conditions that increase eldercare workers' turnover intentions are; low job motivation, job burnout, and limited job autonomy (Jurij et al., 2023). According to Jurij and colleagues (2023), organisational (HR) approaches to increase the retention rates in healthcare systems include; job motivation (e.g., manage the work-life balance), improved working cultures (e.g., supportive leadership styles), abilities and competencies (e.g., adequate skills), and workplace spirituality (e.g., meaningful job creation and high work motivation and self-assertiveness). Sanders and Dickson (2023) also recognise the ongoing challenges faced by healthcare workers striving to provide person-centred services and develop person-centred cultures. What gives hope in such challenging times, they say, is a commitment to promoting employee well-being through a cultural and environmental transformation.

A recent governmental report, shows that to secure sustainable healthcare services and advance health practices in Norway in the future, municipal taxes must be raised to provide funding and increase the proportion of the labour force willing to work in these services (NOU, 2023:4). The present thesis confirms that the quality of working life and the perceived attractiveness of working in nursing homes play a relevant role in promoting WE among nursing home staff. There is a need for combined and locally tailored interventions, such as flexible work-schedule arrangements and targeted organisational efforts to develop attractive and health-promoting working environments that boost employees' job satisfaction and 'joy in work' (Grødem, 2018; NOU, 2023:4; Saunes et al., 2020). In that regard, this thesis provides knowledge that is essential when planning for the development of supportive working environments for nursing home staff.

The positive association between WE and PCP, and employee creativity is an interesting finding from this thesis. Globally, authorities and health organisations explicitly expect healthcare services to be person-centred (WHO, 2015). However, because of poor

conceptual clarity and no agreed upon definition of person-centred care, the healthcare system faces challenges in consistently applying person-centredness in the services provided (Byrne et al., 2020; Edgar et al., 2020). The lack of consensus and clarity of definition also allows for variability in interventions and expected outcomes. The finding of the present thesis supports the Person-centred Practice Framework (McCance & McCormack, 2017b) in that the prerequisites of employees and the care environment must first be considered in order to facilitate PCP and a healthful culture for all involved. Mueller and colleagues (2023) recently proposed specific goals and actions to address nursing-related issues that affect the quality of care in nursing homes in the USA. Their recommendations concern actions – such as involving nurses in daily care planning and innovative projects that promote person-centred care and practice, ensuring a well-prepared and compensated workforce, adopting health information technology, and creating a more robust financing system – thus supporting the findings in this thesis.

The present thesis highlights that practitioners and researchers should focus on the general level of WE and the extent to which this can be maintained and improved by tailor-made interventions in the working environment (Bakker & Albrecht, 2018). From an organisational and managerial perspective, it is also important to acknowledge employees' experiences of time- and environment-related variations in the level of WE. WE appears to be sustainable in challenging work episodes for up to two hours (Reina-Tamayo et al., 2017), on days when employees have access to a wide range of job resources (Bakker, 2014; Xanthopoulou et al., 2009b), and when they are able to recover well from work (Sonnentag, 2003). Managers should encourage employees to act proactively to increase the person-job fit – that is, matching job demands and resources to individual knowledge, skills, and competence (Wrzesniewski & Dutton, 2001). Job-crafting activities are, however, found to be context-specific (Topa & Aranda-Carmena, 2022). Thus, for job-crafting to be efficient, the different types – such as task-related, cognitive, and structural resource crafting – should be adapted to the working environment and occupational group in question. For that purpose, the present thesis offers an evidence-based starting point for managers and employees working in nursing homes. The thesis' findings show that, in nursing homes, job crafting activities targeted at relational, professional, structural, and personal resources can boost staff WE.

The present thesis also shows that there are significant uncertainties and deficiencies in the current knowledge about WE among nursing home staff. Firstly, the existing studies are mainly from hospitals and mostly oriented towards the situation of registered nurses. Moreover, there is a wide variety and discrepancy in the personal resources investigated. Lastly, the possible downside of WE needs closer examination. For example, there are disagreements about whether WE can lead to workaholism (Bakker et al., 2011; Schaufeli & Salanova, 2011). Furthermore, Nerstad and colleagues (2019) found an inverted U-shaped relationship between WE and burnout, indicating that too much WE can lead to burnout. According to their findings, a mastery-oriented working climate focused on cooperation, growth, and collective effort may prevent employees from becoming cynical towards work, a

key dimension of burnout. This reflects the conditions identified in the present thesis as important to WE – such as collaborative and inclusive ways of working, learning and development opportunities, mastery at work, social support, job feedback, and social community.

8 CONCLUSION

Globally, countries struggle to develop healthcare services that enable resource-efficient delivery of person-centred care by a competent, motivated, and sufficient workforce. Addressing challenges with retention, motivation, and well-being among nursing staff working in nursing homes is thus important to meet demands posed by the world's increasingly ageing population. WE has emerged as a prominent concept within the realm of positive occupational health psychology and management strategies, including Human Resource Development (HR). This is not surprising, as WE represents a crucial motivational pathway between the working environment and personal conditions on the one side, and multiple desirable outcomes for employees, organisations, and patients on the other.

This thesis provides knowledge that is important to prevent the loss of competent healthcare workers and improve staff retention and quality of person-centred care in nursing homes. From a theoretical perspective, the thesis identifies the research patterns and gaps in existing literature on WE among nursing staff employed in nursing homes and thus guides future research. From a practice perspective, the thesis provides management, HR practitioners, occupational health services, and the like with comprehensive knowledge about important organisational, relational, professional, and personal antecedents of WE among nursing home staff.

The knowledge that is generated in this thesis can support targeted evidence-based health and well-being initiatives for those employed in nursing homes. As everybody is a receiver of healthcare at some point in their lives, the well-being, retention, and recruitment of healthcare workers is everybody's business. Equally, healthcare workers deserve to work in well-supported environments that maintain and improve their job motivation and well-being and enables the development of person-centred practices. WE can be a key to unlocking the potential and productivity of nursing staff expected to provide person-centred healthcare services. The time is ripe for governments, politicians, and healthcare managers to acknowledge that safeguarding the well-being of employees is crucial to safeguarding the sustainability and quality of healthcare services.

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Paper I

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ORIGINAL PRACTICE DEVELOPMENT AND RESEARCH

Exploring work engagement in the context of person-centred practices: a qualitative study in municipal long-term care facilities for older people

Hilde Hovda Midje*, Kjell Ivar Øvergård and Steffen Torp

*Corresponding author: University of South-Eastern Norway, Horten, Norway
Email: hilde.h.midje@usn.no

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Abstract

Background: To provide high-quality and cost-effective person-centred care, organisations need employees who are committed to perform at their best. Employee work engagement, defined as a positive, fulfilling approach to work, is known to correlate favourably with employee wellbeing and performance and with the service climate. Extended understanding about the meaning of work engagement can promote the development of environments that are both conducive to person-centred practices and good places to work.

Aim: To explore the meaning of work engagement in the context of person-centred practices in municipal healthcare facilities for older people.

Methods: A total of 16 individual interviews were conducted with a purposive sample of registered nurses and nursing assistants working in municipal healthcare facilities for older people in Norway. Data were analysed using a stepwise-deductive-inductive approach. Findings were generated inductively from the themes that emerged in the interviews and were later reflected on in relation to both theory and practice.

Findings: Work engagement is manifest at individual and collective levels, involving intrapersonal, interpersonal and social/group components. Engagement is experienced as contributing to employee work capacity and team effectiveness with respect to person-centred processes.

Conclusion: At individual, collective and environmental levels, employee engagement facilitates the development of person-centred practices in organisations providing long-term care for older people, to the benefit of residents and staff.

Implications for practice:

- Work engagement should be recognised as a condition that fosters employees' ability and willingness to suspend judgment and appreciate the service user's perspective
- Individual-level engagement is contagious, facilitating development of supportive work environments, which, in turn, enables person-centred practices
- Engagement should be approached simultaneously as an intrapersonal, interpersonal, and social/group process, with individual- and group-level outcomes

Keywords: Work engagement, person-centred care, person-centred practices, Job Demands-Resources model, person-centred practice framework, stepwise-deductive-inductive approach

Introduction

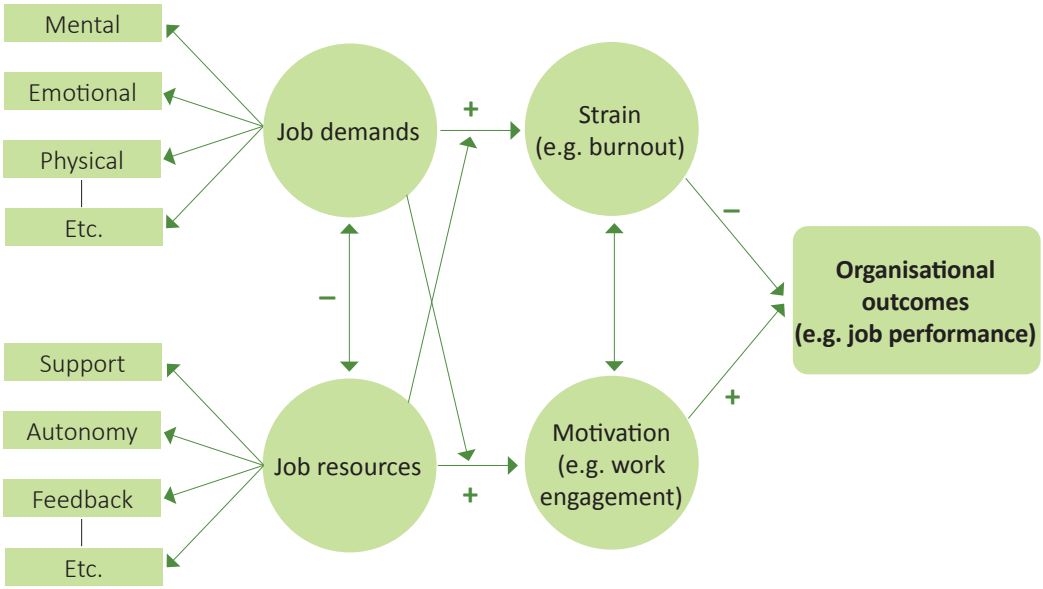
In contemporary organisations, demands on staff are high, in terms of individual performance and skill development, collaboration and responsiveness to organisational changes (Bakker and Schaufeli, 2008). In healthcare, the growing number of older people calls for extraordinary efforts to strengthen the management of chronic disease and increase provision of long-term care, and to increase efficiency and productivity in organisations (Brodsky et al., 2002; Edvardsson et al., 2016; Norwegian Directorate of Health, 2017). A key objective in care for older people is to provide services that embrace a holistic notion of health, and place the person at the centre of care (McCormack et al., 2015). Fundamental to this is the relationship between healthcare workers and older people; to meet the demands of cost-effective and high-quality person-centred care, healthcare organisations need employees with high levels of energy who are willing and able to invest themselves fully in their roles. In other words, they need engaged workers (Bakker and Schaufeli, 2008; Bakker and Demerouti, 2016).

High baseline levels of work engagement seem prevalent among health and social care workers (Hakanen et al., 2018). Studies conducted in Canada and in European countries, such as Sweden, Ireland and the Netherlands, have found that staff caring for older people in nursing homes find joy and fulfilment in their work, for example from being seen as useful to others (Orrung Wallin et al., 2012; Eldh et al., 2015; Vassbø et al., 2019). These studies show that a positive team climate, an institutional culture that values personalised care provision and a strong relationship with older persons receiving care are work-related factors that long-term care staff value and that contribute to job satisfaction and thriving. Nevertheless, there is a number of well-known challenges for registered nurses and nursing assistants in this sector, such as poor working conditions, skill-mix imbalances, an ageing workforce, high turnover and difficulties in retaining enough qualified staff to keep pace with the ageing population (Rosen et al., 2011; Hayes et al., 2012; World Health Organization, 2016). Targeted efforts to build environments that maintain and promote the engagement of staff in long-term care seem beneficial for workers, clients and organisations (Bakker and Schaufeli, 2008; van den Broeck et al., 2017).

Schaufeli and colleagues (2002, p 74) define work engagement as '…a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication and absorption'. According to this definition, engagement is about workers feeling cognitively energised, immersed in and strongly connected to their work. In a broad occupational context, work engagement is known to have both motivational outcomes, such as enhanced creativity, inspiration and enthusiasm (Bakker and Xanthopoulou, 2013), and job-related outcomes, such as improved job performance and service climate, increased organisational commitment and lower staff turnover (Schaufeli and Bakker, 2004; Hakanen et al., 2008; Bailey et al., 2017). In healthcare, work engagement is found to be positively associated with nurses' self-assessed ability to perform higher-level person-centred care and their positive perception of the work environment and service climate, as well as workforce stability (Abdelhadi and Drach-Zahavy, 2012; van Bogaert et al., 2013, 2014).

The Job Demands-Resources (JD-R) model offers an approach to understanding the antecedents and outcomes of work engagement (Demerouti et al., 2001; Schaufeli and Bakker, 2004; Bakker and Demerouti, 2007; Hakanen et al., 2008). According to this model (Figure 1), working conditions related to employee burnout are distinct from those related to engagement (Demerouti et al., 2001; Schaufeli and Bakker, 2004). Job demands are physical and emotional pressures requiring sustained effort that drains employees' psychological and physical energies and are associated with burnout and increasing risk of health impairment (Demerouti et al., 2001; Schaufeli and Bakker, 2004; Hakanen et al., 2008). Job resources refer to working conditions that buffer the negative impact of job demands, enable achievement of personal work goals and foster employees' learning and development (Schaufeli and Bakker, 2004; Bakker and Demerouti, 2017). Job resources contribute to a motivational process that leads to employee engagement, which, in turn, is associated with wellbeing and enhanced work performance. Examples are social support, supervisory coaching, appreciation and autonomy (Bakker et al., 2005a, 2007; Mauno et al., 2007; Bailey et al., 2017; van den Broeck et al., 2017).

Figure 1: The Job Demands-Resources model (Bakker and Demerouti, 2007)



In their systematic review of current literature, predominantly on work engagement among registered nurses working in acute care, Keyko and colleagues (2016) considered 18 studies to develop a specialised version of the JD-R model, which they call the Nursing Job Demands-Resources (NJD-R) model. Like the JD-R model, it includes both job demands and job resources, but it divides resources into operational resources and organisational climate (Table 1).

Table 1: The Nursing Job Demands-Resources model (Keyko et al., 2016)

Antecedents of work engagement		**Outcomes of work engagement**
Main category	*Subcategories*	
Operational resources	• Job resources (including organisation of work and social relations) • Professional resources (including autonomy and professional practice) • Personal resources (including skills and relational factors)	• Personal outcomes (including wellbeing and job satisfaction) • Performance and care outcomes (including perceived care quality and work effectiveness) • Professional outcomes (including reduced intent to leave nursing)
Organisational climate (e.g. quality of departmental leadership and practices of structural empowerment)		

The Person-centred Practice Framework (McCance and McCormack, 2017) provides guidance on operationalising enablers and reducing barriers to delivering person-centred care (Edgar et al., 2020). According to the framework, the 'prerequisites' that contribute to the quality of healthcare services are the skills, attitudes and behaviours of the individual worker. Other relevant factors and activities follow from 'the care environment' and 'person-centred processes'. In the latter domain, engagement explicitly features as an attribute. The JD-R factors that contribute to employee wellbeing, motivation and job performance align well with the different domains in the framework; both highlight the significant impact of environmental, personal and relational factors on staff behaviours and patients' experiences. Manley and colleagues (2011) identify such factors as building blocks to developing an effective team and workplace culture.

A systematic review, including 214 studies of work engagement in various disciplines (Bailey et al., 2017), suggests gaps remain in the evidence base in relation to the meaning, antecedents and outcomes of engagement. Keyko and colleagues (2016) concur, arguing for further research and testing of the NJD-R model and specifically for qualitative studies to detect as-yet undocumented antecedents and outcomes of nurses' engagement, and also beyond the acute context that they researched. Additionally, these authors point to the gap in research on patient-related outcomes of nurses' work engagement. This study builds on both the J-DR model and the NJD-R model, and specifically applies them to the Person-centred Practice Framework, using the framework to support the analysis, discussion and presentation.

Aims

This study aimed to explore the meaning of work engagement in the context of the development of person-centred practices, as experienced by healthcare workers in municipal long-term care facilities for older people.

Method

Design

In this study – conducted in accordance with person-centred methodologies (McCormack, 2003) – a qualitative exploratory design was chosen, using semi-structured individual interviews and the stepwise-deductive-inductive (SDI) analytical approach (Tjora, 2017). With prior research on our topic sparse, this approach was chosen because it allows the application of existing theoretical frameworks while permitting the authors to derive new categories and descriptions from the data. The need for research was identified in collaboration with unit managers and their co-workers, and the first author (HHM) maintained regular contact with our participants (McCormack, 2003). The study was approved by the participants on the condition that the first author would revisit the units to present study findings and answer questions, and also support practice development as an onsite consultant.

Setting

In Norway, long-term healthcare services for older people are mainly public and managed by local government at municipality level. In this study, data were collected in units in three nursing homes and two residential care facilities in a municipality in the southeastern part of the country. Residents were adults of all ages, although mostly older persons, with complex and/or chronic health challenges, who required full-time help. The number of beds in the units ranged from 20 to 81 and the units were quite similar in terms of professional categories, skill-mix, organisation of work, and daily management and service routines. The residential care facilities are partly publicly funded; residents purchase an apartment in the facility but their care is funded.

Participants and recruitment

The healthcare workers were all part of a planned intervention study, focused on work engagement and person-centred practices. Participants were registered nurses and nursing assistants, subsequently referred to here as 'healthcare workers'. Some tasks are shared but each role has tasks for which it is responsible. Their educational requirements differ: nursing assistants generally follow a vocational track at high-school level, while registered nurses have completed college. However, the work contributions of the two groups are strongly connected; they share the same purpose and are all directly involved in the provision of person-centred care. Unit middle managers were contacted by the first author and asked to recruit participants. Inclusion criteria were:

- Three or more years of experience as a registered nurse or nursing assistant
- A high level of Norwegian language proficiency
- An ability and willingness to elaborate on personal experiences

This resulted in a purposively selected sample to ensure a range of experiences and professional categories, and both female and male representation (Table 2).

Table 2: Characteristics of the participants	
Participants	Total: 16 • Setting: (9 in nursing homes, 7 in residential care facilities) • Sex: 13 women, 3 men • Mean age: 34 years (range 27-63)
Position	• Registered nurses: 8 (4 in nursing homes, 4 in residential care facilities) • Nursing assistants: 8 (5 in nursing homes, 3 in residential care facilities) • Unit middle managers: 3 (1 in nursing home, 2 in residential care facilities)

Data collection

In May and June 2020, the first author conducted in-depth semi-structured individual interviews that also invited open dialogue. The interviews took place online via Microsoft Teams and lasted between 46 and 60 minutes. They were audiotaped, anonymised and transcribed verbatim by the first author shortly after they ended. During all conversations, the interviewee and interviewer were in separate rooms where they were not disturbed. The first author was honest about her lack of experience undertaking such research and focused on mutuality and being sensitive to any wish on the part of a participant to pause or even end the interview (McCormack, 2003). The interview guide was developed based on the scope of the study and earlier research, and aimed to generate extended and reflective answers on the specific topics. Participants were asked about their experiences of work engagement, the work environment, person-centred care and person-centred practices.

Data analysis

Analysis followed a stepwise-deductive-inductive approach (Tjora, 2017) and was mainly carried out by the first author. Similarly to the inductive principle of grounded theory (Glaser and Strauss, 1967), the first step is to identify parts of the text that carry meaning and create empirically close codes. These codes present the core content and details of the empirical material and thus facilitate data-driven interpretations and analyses. Early analytical steps resulted in about 550 codes maintaining detailed interview contents. Initially, these codes were sorted and structured into 26, broad 'code groups' (Tjora, 2017) on the basis of coherence within each group. The 26 groups were broken down into 91 smaller groups of themes. In subsequent analytical steps, more firmly based on the scope of the study and on a new thorough read-through of the preliminary analytical work, a structured sorting and substantial volume reduction resulted in five broad code groups divided into 19 subcategories of themes. In the final analytical steps, the five groups and 19 subcategories were kept but eight new main categories were developed from a higher degree of sorting of the subcategories. These eight categories aimed to define the essence of the healthcare workers' experiences and form the empirical-analytical basis for this article. Later, in the Discussion section, theoretical perspectives are used to support understandings formed about what the main categories imply. In accordance with the stepwise-deductive-inductive method, the relatively linear steps of inductive analysis and interpretation were assessed through an incremental feedback strategy of using the stepwise-deductive control questions – for example, is the main category coherent and covering all its codes? This assessment was performed independently by the first and third authors (HHM and ST). Therefore, through tight connection between raw data, analysis and interpretation, validity was maintained through a strategy that resembles the 'theoretical sampling' method in grounded theory (Glaser and Strauss, 1967).

Ethical considerations

The study was performed in line with the World Medical Association Declaration of Helsinki (WMA, 2017). The first author began each interview by providing oral information about the aim of the study and reminded participants of their right to withdraw without further explanation or any consequences. In the transcribed interviews, all participants were anonymised using designated letters. Data were stored according to the requirements of the Norwegian Centre for Research Data, which approved the study.

Findings

The findings are presented in three tables and structured by five code groups (predetermined by the five topics addressed in the interview questions) with their respective main and subcategories derived from the stepwise-deductive-inductive analysis. The following section covers those five main categories. Somewhat surprisingly, despite the interviewees' different access to learning and education, the data did not display any significant differences between the groups of registered nurses and nursing assistants. Therefore, data are presented together. Quotes from participants are included to illustrate and validate interpretations. Some quotes have been slightly altered for sense but without changing the original meaning. To ensure all quotes could be traced back precisely to the transcribed interviews, they were coded by designated letters and numbers.

Work engagement

Elevated physical, cognitive, and emotional capacity

As Table 3 shows, healthcare workers described elevated physical energy as a major characteristic of work engagement. This means a sense of physical wellbeing and elevated energy, facilitating improved performance and effective actions, as well as reducing fatigue.

> *'You just feel it in your body, that today I am capable of doing this and that. That I will do all my best'* (A50).

Engagement also importantly bolstered psychological factors like mood, motivation and positive attitudes towards work. When engaged, employees felt enthusiastic and activated, and found their daily tasks joyful and fulfilling. Boosted physical, cognitive, and emotional capacity helped them to be proactive and show initiative, and persevere when facing demanding situations.

> *'When engaged, it is much easier to solve the work tasks, because you approach them with a positive attitude'* (L8).

> *'Employees sometimes are met with statements from residents that put them to the test with regards to professionalism. Then, it is of course important that you, right from the start, have a positive attitude and engagement towards your work. Because then you can cope with such encounters as well'* (P37).

Table 3: Work engagement: overview of findings

Code group	Main categories	Subcategories
Characteristics of work engagement	Elevated physical, cognitive and emotional capacity	• Energised, effective and robust • Positive attitude and emotions
Antecedents of work engagement	Satisfaction from individual work-related expectations being met	• Support and positive feedback • Mastery and doing something meaningful • Developing and using personal skills and attributes
	Improved group-level motivation and team spirit	• Contagious relational effect of motivated colleagues • Being part of a cheerful, collaborative and supportive team

Satisfaction from individual work-related expectations being met

As highlighted in Table 3, healthcare workers spoke of how important it was to feel noticed and recognised, and to get positive feedback on their work performance (from colleagues, residents and residents' relatives). Recognition, personal backing and guidance from unit managers was regarded as especially important in terms of promoting engagement.

> *'It has to do with the unit managers, I mean, how they follow up with us. It is clear that if they follow up with us well, then our engagement increases as well. To have a manager who is easy to talk to, that you get the impression that you are always welcome to come and talk with the person. That is crucial to my engagement'* (K42).

Other factors driving work engagement included: the experience of mastering tasks; being able to use and further develop professional knowledge and competencies; and having the scope in the course of work to do 'the little extra' – and sometimes something substantial – for residents in order to meet their personal preferences.

> *'To get a resident-related work task from my manager and to experience how it impacts residents – that revitalises my engagement and motivation to keep on working'* (D34).

Improved group-level motivation and team spirit
Having engaged colleagues clearly was crucial to individual engagement. All respondents pointed out the contagious effect of co-workers who were strongly driven and highly motivated towards work. They also mentioned the uplifting effect of being part of a cheerful, collaborative and supportive team with shared goals.

> *'Work engagement is highly contagious. I find it extremely hard when people are kind of unattached and unmotivated, because if you feel responsible for uplifting and motivating co-workers all the time… So, I find it amazingly motivating and my engagement peaks when my co-workers are engaged, and we all share a common goal and really want the best for the residents'* (O36).

Person-centred care
Paying attention to the whole person
As shown in Table 4 on page 8, the healthcare workers stated they had learned what person-centred care is about during their professional training. Also, they strongly believed they all practised it, yet in a quite unconscious and automatic manner and without a common language. When describing person-centred processes, they underlined the importance of a holistic approach. This included practising safe and effective medical care, meeting the residents' basic physical needs and recognising the whole person and their individual spiritual needs and interests. Of central importance was to meet each person with respect and to think about and work with each resident as a human being, not simply a patient primarily characterised by the medical diagnosis.

> *'When they move in, I always ask what they need help with, and that I find interesting, because the answers I get are quite different. To find a balance between their personal opinions on what they need help with and our observations of it is quite interesting. But I feel, by asking an open question, you reveal lots of individual differences. Some strongly emphasise one condition compared to another. In that way, you automatically are able to customise services to a much larger extent'* (D55).

All healthcare workers saw it as crucial always to take the time needed to practise kindness and compassionate care. This implied prioritising time spent just sitting and talking with the residents and participating in the specific leisure activities the older people enjoyed. Further, facilitating the involvement of residents in their daily care activities was recognised as important. This required the healthcare workers to balance their professional expertise with the residents' individual wishes and concerns.

> *'If you have spent two hours walking and sitting outdoors with a resident, you possibly did not have the time to tidy all the rooms. Then it is quickly recognised by some colleagues as not doing your job. But in my opinion, you have done your job with substantially higher quality than if everything were fully tidied'* (O17).

Table 4: Person-centred care: overview of findings

Code group	Main categories	Subcategories
Person-centred processes	Paying attention to the whole person	• Have learned about it and practice it, but rather unconsciously • Provide kindness and affectionate togetherness to human beings • Customise care to multidimensional needs and preferences • Involve residents to facilitate mastery and self-help
	Knowing the person	• Getting to know residents' true self takes time • Observe, communicate and put oneself in the residents' situation
Attributes of staff	Use all senses in encounters with residents	• Patient and in emotional control • Positive, in a good mood, and attentive • Skilled in relation and communication

Knowing the person

As shown in Table 4, in order to meet the various and complex needs of residents, the healthcare workers had to get to know their authentic selves by building strong relationships and connections. Spending a lot of time talking with the older people and closely observing them during performance of daily routines were rated as being most important. Through such encounters and personal conversations over time, staff became familiar with details about the residents' previous professional lives, family relationships and interests, as well as their personal beliefs and values. These observations clearly played a vital part in individualising and tailoring care services.

> *'I have an example. A resident who only eats fish and cannot eat that much because of allergies, ordered dinner for some days, but then he started refusing to eat. He got scared when you put sauce on top of the fish, as if the sauce could be contaminated with some of the things he could not eat. But no one grasped it until I discovered that if we separated the food in different bowls, then he clearly could see the potato, the fish… Then he could put it on the plate himself and it was not that scary anymore and he managed to eat properly. But one had to spend quite some time on investigating why he did not trust the food to not be contaminated'* (E89).

Use all senses in encounters with residents

As the majority of residents were older and living with various mental and physical conditions, the workers had to use all their personal and professional skills and competencies to communicate well, engage authentically and perform high-quality assessments during encounters. To deliver person-centred services and to facilitate the involvement of the older people in decision making, staff had to be open and sincerely interested in them, in addition to using professional judgement. In their interviews, the employees articulated the ideal of an attitude of careful attentiveness to the mental state of the older people and a calibrated combination of verbal and bodily communication. Achieving this involved caregivers adjusting their own mood and attitudes so that they were in emotional control and came across to residents as patient, positive and helpful.

> *'The demands are high, and you have to activate all of your senses. You must see, smell, touch and feel. You are supposed to recognise the persons' voice behaviours, facial expressions, and if the skin is clammy or warm. You work kind of with all your body and senses to make the residents' day a good one. So, I must be fully activated as a professional, but also as a fellow human being'* (O45).

Work engagement and person-centred practices

Individual-level work engagement

On an individual level, work engagement seemed important to the healthcare workers' fundamental capacity and willingness to give all their best in the provision of person-centred care (Table 5, page 9). The experience of physical, cognitive and emotional energy associated with engagement resulted in the workers feeling more able and committed to adjust communication and interaction to each resident. Such a positive and sharpened mindset enabled a more authentic, creative and detail-oriented approach to work.

'When engaged, you take your time, or you are in another state of mind. You have a different attitude, and you consciously use humour and asks some questions, because you are genuinely interested in getting to know the resident' (N50).

'If you are not engaged in work, then I imagine it to be difficult to engage authentically or give high-quality services to the users. Because if you are not engaged, you are almost like a robot. You do things on autopilot and the client most often notices that, and so do the people around you' (N46).

Prominent in the data was the healthcare workers' descriptions of how work engagement made it possible for them to 'go the extra mile' for the residents. This became clear when participants described working days when they were not feeling engaged. When poorly motivated and tired, they performed at an absolute minimum.

'It is not that day you start baking and walking and do all the extras, you know. You make sure to place your efforts on a level of absolute minimum and only focus on getting through' (O42).

Table 5: Work engagement and person-centred practices: overview of findings

Code group	Main categories	Subcategories
Work engagement in the context of person-centred practices	Individual level work engagement	• Motivated and capable of doing 'the little extra' • The feeling of wellbeing enhances willingness and capacity to truly connect with residents
	Group-level work engagement	• Supportive and effective staff relationships facilitate person-centred practices

Group-level work engagement

The participants described how engagement contributed to a feeling of wellbeing and happiness, and to a positive attitude. These outcomes of higher-level individual motivation and initiative were contagious and promoted engagement on a collective level, which, in turn, facilitated positive staff relationships through more supportive, respectful and committed socialisation at a group level. This positive team climate was characterised by openness and good communication, colleagues offering each other help and regularly discussing and sharing solutions to tasks. Hence, the workers felt safe and supported, and even more inspired and motivated to perform at their best.

'When engaged, employees feel well, are positive and try to find good solutions. The sort of things one possibly would not do when being part of a poorly functioning team. So, for sure, it is best when all are engaged and, by that, pull the workload together and agree on things. Meaning that there is room for discussing things' (M113 + 117).

'It is the joy and engagement in all the workers that is contagious. That is, everyone really wants to do a good job. So, it almost comes to the point that we strive to become the best working unit and we want to provide the best care' (O31).

Additionally, staff expressed the view that an engaged workforce in which individuals were supported to use their particular skills and competencies would offer residents the best possible level of service.

'Because if we all do what we are really engaged in and the things we feel competent in, then the residents will receive a total package. In a way, it is no use in only certain of us being present at work every day, because then you get much of just one thing. Then many needs and desires of the residents are not met. So, we need all' (O19).

Discussion

The study's findings highlight that healthcare workers in municipal long-term care facilities for older people experience the antecedents and outcomes of work engagement largely in line with the Job-Demands Resources (JD-R) model (Demerouti et al., 2001; Schaufeli and Bakker, 2004; Bakker and Demerouti, 2008; Bailey et al., 2017) and the Nursing Job-Demands-Resources (NJD-R) model (Keyko et al., 2016). Results indicate that engagement enhances individual motivation, capacity and robustness, and group-level team spirit and functioning. Altogether, this dual effect seems to have a substantial impact, both on employees' self-rated ability to engage in person-centred processes and on the development of work environments that are conducive to person-centred practice.

The participants all claimed to be engaged themselves. From their interview responses, work engagement is affirmed to be an activated positive state with cognitive, emotional and behavioural dimensions (Schaufeli et al., 2002; Bakker and Demerouti, 2008). Keyko and colleagues (2016) state that conceptualisations and measurements of engagement are quite consistent and predominantly in line with the definition by Schaufeli et al. (2002), who see engagement as a psychological state within an individual that is characterised by certain positive behaviours. Nevertheless, it is argued that there still is a lack of consensus on how to define engagement (Bailey et al., 2017). With regard to care settings, Dewing and McCormack (2015) are critical of the unitary construction of engagement put forward by Schaufeli and colleagues. In their reflective paper, Dewing and McCormack (2015) propose a revised working definition of engagement for use in person-centred practice research. This definition builds on the Schaufeli conceptualisation but presents a multi-level construct of cognition, knowledge and behaviour. According to this revised definition, engagement not only is about enhanced cognitive and psychological capacity on an individual level, but also is to be recognised as a holistic and embodied experience on multiple levels. This is supported by this study's findings, which indicate that engagement leads to observable individual behaviours that are contagious and may cross over and influence co-worker engagement and relational working processes. Hence, the findings resonate with a crucial point in the definition proposed by Dewing and McCormack – namely, that engagement is a multi-level construct of intrapersonal, interpersonal and social/group processes.

Bailey and colleagues (2017) contend that the antecedents of work engagement are related both to psychological states within the individual and to organisational and psychosocial resources. That said, Lesener et al. (2020) argue that interventions targeting organisation-level resources – meaning conditions related to the organisation and management of work – seem most effective for enhancing engagement over time. The antecedents of engagement identified by the healthcare workers in this study match job resources in the JD-R model, such as social support, quality of the relationship with the manager, feedback on job performance, opportunities for development, mastery and doing something useful for others (Bakker et al., 2005a; Bargagliotti, 2012; Bailey et al., 2017). Other substantial antecedents of engagement experienced by the participants are having engaged colleagues and being part of a collaborative, strongly driven and ambitious team. These findings concur with previous studies. In research based in nursing homes, White and colleagues (2020) found that components of the work environment such as strong nursing leadership, collegial nurse-physician relationships and sufficient staffing and resources, improve care quality and reduce risk of job dissatisfaction and burnout. Further, a study among healthcare staff working in long-term care of older people found that what motivates nurses and promotes person-centredness are relationship-based aspects such as being seen as useful to others, receiving gratifying comments about performance and experiencing personal development through strong connections with residents (Eldh et al., 2015). Altogether, the antecedents of work engagement identified by the participants in this study match the thematic categories of operational resources and organisational climate, as described in the NJD-R model (Keyko et al., 2016). They are also consistent with some of the constructs that comprise 'the care environment' in the Person-centred Practice Framework: effective staff relationships, shared decision-making systems and power sharing, all of which are environmental conditions known to have a significant influence on the facilitation of person-centred processes (McCance and McCormack, 2017).

Edvardsson and colleagues (2014) state that person-centred care is the recommended standard for care of people with dementia and is associated with positive outcomes for residents and staff. The terms person-centredness and person-centred care are emblems of a movement that aims to ensure people are at the heart of care delivery and to cultivate practices mindful of those who deliver and experience care (Manley et al., 2011; Edgar et al., 2020; Ebrahimi et al., 2021). Internationally, there is a shift in focus from person-centred care to person-centred practices or cultures, meaning workplaces focused on providing sustainable person-centred care through supportive environments and collaborative, participatory and person-centred ways of working (Manley et al., 2011; Dewing and McCormack, 2015; Cardiff et al., 2020; Edgar et al., 2020). While all the participants in this study claimed to have both professional- and practice-related knowledge of what person-centred care is about, they stated that they transfer this knowledge into practice unconsciously and without a coordinated practice or use of the exact term. A study among Canadian nurse assistants working in long-term care homes found that, although they had a foundation of practice-based knowledge about person-centred care, there seem to be variability in practice and application (Hunter et al., 2015). Bearing in mind the lack of consensus on the essential components and interrelated concepts of person-centred care (Edgar et al., 2020), there remains a need for more research and a stronger focus on how to operationalise and implement processes of person-centred care (Edvardsson et al., 2016; Ebrahimi et al., 2021).

To arrive at a comprehensive understanding of the meaning of work engagement in the context of person-centred practices, the thematic structure of main and subcategories based on experiential descriptions from the participants in this study were interpreted in the light of the Person-centred Practice Framework (McCance and McCormack, 2017). According to the participants, the core component of person-centred care is treating long-term care clients as individuals with unique sets of needs and preferences. This implies providing individualised care services based on in-depth knowledge about the person, accumulated through trusting relationships and respectful negotiation. This reflects the findings of a recent study exploring the essential factors of applied person-centred care in out-of-hospital settings for older people (Ebrahimi et al., 2021). That study prioritises knowing and confirming the patient as a whole person, the co-creation of a tailored health plan, and coordinated teamwork and collaboration for and with the older person and their family. Vassbø and colleagues (2019) argue that for nursing home staff, working in a person-centred way means being able to respond to residents' individual characteristics and preferences, and to provide personalised services. With regard to the attributes of staff who can deliver effective person-centred care, participants in this study mention being highly attentive and patient, a willingness to adjust their communication and attitude, the use of professional judgement and being open and sincerely interested in each resident. The descriptions of the core elements of person-centred care and necessary attributes of staff overlap respectively with the interrelated domains of 'person-centred processes' and 'prerequisites' in the Person-centred Practice Framework (McCance and McCormack, 2017). The relationship between staff characteristics and workplace environment and their relevance to high-quality person-centred care in public healthcare settings are supported by the results of several studies (Sjögren et al., 2014, 2017; Røen et al., 2018). Additionally, Bergland and Kirkevold's (2006) research into the factors that impact on residents' wellbeing and thriving in nursing homes also points to the attributes of the residents themselves.

With reference to the Person-centred Practice Framework, our findings support the sense of person-centred processes as a relational process constituted by activities such as sympathetic presence, authentic engagement, shared decision making and provision of holistic care. These are served by caregivers' cultivating their interpersonal skills, job commitment and professional competence (McCance and McCormack, 2017). For staff to come across to residents as joyful, warm and friendly, and develop trusting partnerships through appropriate communication and consistent engagement, they would benefit from feeling energetic, mentally strong and positive about work (Abdelhadi and Drach-Zahavy, 2012; Bakker and Xanthopoulou, 2013; van Bogaert et al., 2014). Our results indicate that engagement facilitates the mobilisation of personal attributes, and thereby enhances the capacity

of each employee to engage fully in person-centred processes. The characteristics and effects of engagement described by our participants are consistent with the personal and performance and care outcomes featured in the NJD-R model (Keyko et al., 2016). Engagement, as a positive work-related state of mind, is experienced by the healthcare workers in this study as helpful to their ability to fully connect with long-term care clients and do 'the little extra' for them.

Engagement has been found to influence workers' observable behaviours, such as acting more proactively (Sonnentag, 2003) – behaviours that, in turn, send positive signals to peers in the environment (Bakker et al., 2005b; Bakker and Xanthopoulou, 2009). Our findings indicate that engagement and positive attitudes on an individual level are contagious and experienced as boosting the development of group-level engagement. When participants described this group engagement, they highlighted its promotion of effective relational working processes such as collaboration, communication, and shared values and responsibilities. The two-level effect of enhanced individual and group capacity leads in turn to improvements in the provision of person-centred care, through more effective, collaborative, smooth and compassionate care delivery. In line with Manley et al. (2011), our results highlight that person-centredness applied to those who deliver care is intrinsically linked to effective workplace cultures. With reference to the Person-centred Practice Framework (McCance and McCormack, 2017), effective staff relationships and power sharing are regarded as key elements for realising the true potential of teams, and thereby crucial building blocks of a care environment that is conducive to person-centred practices. Our findings highlight the interrelated nature of the different domains of the framework and show that work engagement has a positive impact on the attributes of staff, on their capacity to engage in person-centred processes and on environmental conditions that are conductive to person-centred practices. The 2005 study by Salanova and colleagues, of frontline hospitality employees and customers, confirms that work engagement can be conceived as a collective, team-level experience. Their results show that work engagement of teams influences the service climate which, in turn, is related to performance. Bailey et al. (2017) also identify higher-level performance outcomes of work engagement, such as team performance and quality of care. In the future it would be beneficial to investigate work engagement at the collective level and to distinguish further between the conceptual elements of individual and collective engagement (Schaufeli and Salanova, 2011).

With regard to interpreting the findings of this study, there are important aspects to consider. First, the JD-R approach predominantly focuses on individuals and their immediate situations, so is open to the criticism that it simplifies the nature of environmental conditions and complexity of interactions within the workplace (Bakker and Demerouti, 2017; Bailey et al., 2017). Based on a concept analysis of work engagement in nursing, Bargaliotti (2012) criticises the JD-R model's lack of attention to the transactional character of the workplace, in that work engagement is regarded as externally controlled and dependent on a balancing act between job demands and resources. Bargaliotti, rather, emphasises the relational character of the antecedents of nurses' engagement, of which trust and autonomy seem most important. An outcome of nurses' work engagement, she argues, are increased levels of personal initiative that are contagious.

Second, in accordance with Bailey and colleagues, engagement itself can be positioned as an antecedent, mediator, moderator or outcome. In the study by Vassbø and colleagues (2019) in nursing homes, working in a person-centred way seemed to produce resources known to be conducive to work engagement, such as autonomy, collegial support and meaning. Further, working towards a coordinated practice in a collaborative team to meet shared goals was recognised as a cornerstone of working in a person-centred way (Vassbø et al., 2019). This resembles team engagement as described in this study. Eldh et al. (2015) concur that a holistic approach and strong bonding with colleagues, residents, and residents' relatives are essential aspects of caring for older people and conducive to employee motivation, fulfilment and growth. Hence, among staff within nursing homes, working

in a person-centred way in itself may be identified as an antecedent to work engagement, through enhanced wellbeing, vitality and learning (Eldh, 2015; Vassbø et al., 2019).

Strengths and limitations

A comprehensive study of the meaning of work engagement in the context of the development of person-centred practices in municipal facilities for the care of older people would require gathering data from all the relevant actors to insure the broadest perspective. That residents' perspectives were not collected and commented on we regard to be the main limitation of this study. When reviewing the findings, it can be difficult to conclude whether participants are describing engagement and the provision of person-centred care as it actually is in their everyday working life, or in a more theoretical and idealised manner. It could be that they learned about engagement and person-centred practices when contributing to baseline intervention data in a questionnaire before being interviewed. For that reason too, the inclusion of residents' perspectives would have been beneficial to the interpretation of data.

The fact that the study was conducted in a single municipality in southeastern Norway may limit its applicability to settings elsewhere. Also, the fact that respondents were selected for invitation by managers might have contributed to the presentation of an overly rosy picture. Nevertheless, the sample did include two of the professional groups most involved in direct care, which contributes to capturing a wide range of views and experiences. In addition, many of the findings reported here reflect those of other studies.

Conclusion

Healthcare workers working with older people in long-term facilities are expected to provide care that is holistic and tailored to individual needs and preferences. This entails a high level of individual skills and competencies; to achieve authentic relationships with long-term care clients workers must always be attentive and emotionally in control of themselves, adjust communication appropriately, and come across as joyful and positive. Worker engagement is key to the practice of person-centred care, facilitating enhanced physical, emotional and cognitive capacity on the part of individual workers, and, on a collective level, improved relational conditions and processes. In the context of long-term care for older people, work engagement should be recognised as an intrapersonal, interpersonal and social/group process, with desirable outcomes both for the wellbeing of staff and the development of person-centred practices.

Key messages for practice

- On a team level, make explicit the core values of person-centred care, with care providers supporting and challenging each other as colleagues to ensure behaviour reflects these ideals
- It is important to build work environments that promote work engagement as a continuous, collaborative, inclusive and participatory process
- To enhance work engagement, employees should assess their work environment and focus on building job resources such as social support, job feedback, opportunities for development, mastery, meaningful tasks, and collaborative and inclusive ways of working
- Unit managers should pay special attention to their role as facilitators of colleagues' work engagement, through the provision of ongoing supervision, support and opportunities for development

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Hilde Hovda Midje (RPT, MSc), PhD candidate and Health & Safety consultant, Research Group for Health Promotion in Settings, Department of Health, Social and Welfare Studies, University of South-Eastern Norway, Drammen, Norway.
Kjell Ivar Øvergård (PhD), Professor, Research Group for Health Promotion in Settings, Department of Health, Social and Welfare Studies, University of South-Eastern Norway, Horten, Norway.
Steffen Torp (PhD), Professor, Research Group for Health Promotion in Settings, Department of Health, Social and Welfare Studies, University of South-Eastern Norway, Horten, Norway.

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ORIGINAL PRACTICE DEVELOPMENT AND RESEARCH

The role of working environment and employee engagement in person-centred processes for older adults in long-term care services

Hilde Hovda Midje*, Steffen Torp and Kjell Ivar Øvergård

*Corresponding author: University of Southeastern Norway, Horten, Norway
Email: Hilde.H.Midje@usn.no

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Abstract

Background: Assuring high-quality, person-centred practice in long-term care organisations requires attention to the wellbeing of the staff who deliver it – a factor sometimes overlooked amid the increasing challenges such organisations confront internationally. Research has shown that job demands and job resources are distinct aspects of the working environment that interact in predicting staff wellbeing and motivation. Work engagement can serve as a means to improve job motivation and performance, and also potentially facilitates activities that operationalise person-centred practice.

Aims: To explore the influence of job demands and job resources on work engagement and person-centred processes, and examine whether engagement moderates or mediates the effects of demands and resources on person-centred processes.

Method: A cross-sectional survey design with standardised self-report questionnaires was used to collect data on job resources, job demands, work engagement and person-centred processes from 128 registered nurses and nursing assistants in municipal care homes and nursing homes for older adults in Norway.

Findings: Both work engagement and person-centred processes were positively associated with job resources. There was no significant negative association between person-centred processes and job demands. Work engagement was neither a significant moderator nor a mediator between job resources and person-centred processes.

Conclusions: Enhancing job resources for nursing staff can positively impact their work engagement and support person-centred processes. In contrast to predictions by the dominant Job Demands-Resources (JD-R) model, work engagement did not moderate nor mediate the influence of job resources on person-centred processes.

Implications for practice:

- Providing job resources such as meaningful tasks, colleague fellowship, development and autonomy is important to enhance nursing staff's work engagement
- Improving organisational and psychosocial working conditions could build an organisational culture that is favourable for person-centred processes
- Building a supportive working environment within long-term care organisations is strategically important to resource-efficient delivery of person-centred care

Keywords: Work engagement, working environment, Job Demands-Resources model, person-centred processes, long-term care, health promotion

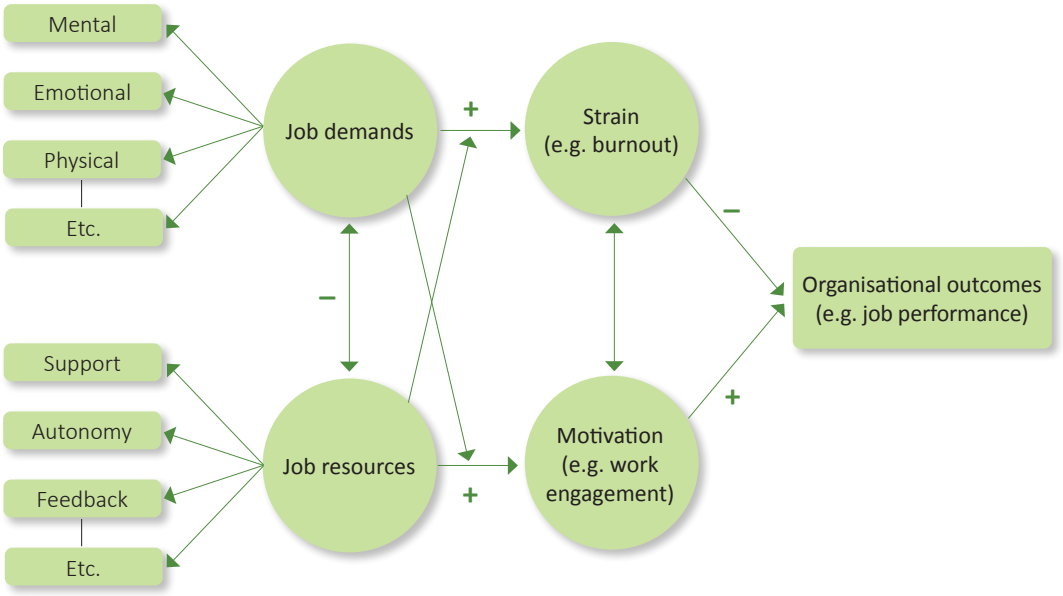
Introduction

A global trend towards population ageing is increasing the number of people living with chronic diseases and/or functional and mental health conditions, highlighting the need to boost capacity for the provision of long-term care and responsive services that match the preferences and needs of their users (Brodsky et al., 2002; World Health Organization, 2016). More resources directed towards healthcare can address the ongoing problems of high turnover rates among nurses, skill-mix imbalances and the fact that a large proportion of the physician and nursing workforce is nearing retirement (Wells and Norman, 2009; Hayes et al., 2012; World Health Organization, 2016). Although the supply of healthcare personnel in Norway is high compared with other European countries, a continuing growth in demand for qualified staff in long-term caregiving organisations is forecast (Norwegian Directorate of Health, 2017; Grødem, 2018; Sperre Saunes et al., 2020). Assessments of the adequacy and continued development of long-term care services in Norway have made the provision of person-centred care a major concern of organisational strategy (McCormack et al., 2015). Meeting the demands of high-quality healthcare while addressing the challenges of rising costs, a shortage of nursing staff, high rates of sickness-related absenteeism and a high proportion (25%) of non-licensed assistant personnel, have accelerated the need to improve organisational functioning and make more efficient use of human resources in long-term care services in Norway (Grødem, 2018; Sperre Saunes et al., 2020).

Engaging the self and personal qualities is vital in person-centred care and, correspondingly, developing an institutional culture that attends to staff wellbeing is key (McCance and McCormack, 2017; Midje et al., 2021). Work engagement is defined as '…a positive, fulfilling, work-related state of mind that is characterized by vigour, dedication, and absorption' (Schaufeli et al., 2002, p 74). Within healthcare, engagement should be recognised as a multilevel construct of cognition, knowledge and behaviour, and as a process manifesting at intrapersonal, interpersonal and group levels (Dewing and McCormack, 2015; Midje et al., 2021). Work engagement and work-related wellbeing are positively associated with occupational commitment and negatively associated with turnover and turnover intentions among registered nurses and nursing assistants in hospitals (Laschinger, 2012; Shahpouri et al., 2016; De Simone et al., 2018) and long-term caregiving organisations (Rosen et al., 2011; Hara et al., 2021). Further, engagement is positively associated with job satisfaction (Bailey et al., 2017), work effectiveness (Laschinger et al., 2009), patient satisfaction (De Simone et al., 2018) and patient quality of care (García-Sierra et al., 2016; Keyko et al., 2016; Wee and Lai, 2021). Given that research has linked the practice environment to work engagement, targeted efforts to build working environments aimed at raising levels of engagement seem beneficial for employees, organisations and patients alike (Schaufeli and Taris, 2014; García-Sierra et al., 2016).

Bailey and colleagues (2017) suggest work engagement is most often explained in the context of the Job Demands-Resources (JD-R) model and theory (Bakker and Demerouti, 2007; 2017). Originally, the JD-R model was used to explain antecedents of the two burnout dimensions – exhaustion and disengagement from work (Demerouti et al., 2001). Later, the model was revised to be a more comprehensive framework for work-related wellbeing, treating burnout as a unitary construct by including its positive counterpart, namely engagement (Schaufeli and Bakker, 2004). In this new form, which retains the JD-R's basic schema as its core, the model is considered well-suited for assessing employee wellbeing across various jobs and organisations (Lesener et al., 2019).

Figure 1: The Job Demands-Resources model (Bakker and Demerouti, 2007)



The JD-R model (Figure 1) posits that job demands and job resources are two distinct categories of working environment conditions, with differential relationships to burnout and engagement (Bakker and Demerouti, 2007; Bakker et al., 2014). Burnout results from high demands and inadequate levels of resources. Job demands (such as physical demands, workload and work pressure) require sustained physical and mental effort and therefore relate to burnout and health impairment through energy depletion and exhaustion (Demerouti et al., 2001; Bakker et al., 2005; Bakker and Sanz-Vergel, 2013; van den Broeck et al., 2017). Job resources (such as autonomy, social support, performance feedback and role clarity) buffer the impact of job demands, facilitate employees' learning and development, and serve as a means to achieve work goals (Bakker and Demerouti, 2017). Job resources activate a motivational process, which results in work engagement, which, in turn, helps workers and organisations function at a high level (Bakker et al., 2014; Bakker and Demerouti, 2017). On the JD-R model, engagement – as a positive affective-motivational state – is presumed to mediate the effects of job resources on organisational outcomes (Schaufeli and Taris, 2014) – such as person-centred care, when set as a fundamental standard to achieve.

By operationalising the theoretical concepts of prerequisites, care environment, care processes and person-centred outcomes by the constructs that constitute them, the Person-centred Practice Framework (McCance and McCormack, 2017) gives guidance on how to develop person-centred cultures that ensure sustainable practices that support person-centredness for both patients and staff (Edgar et al., 2020). The job resources identified by the JD-R theory, as mentioned above, match some of the constructs that comprise 'the care environment' in the Person-centred Practice Framework, such as effective staff relationships, power sharing, supportive organisational systems, potential for innovation and risk taking, and shared decision-making systems (McCance and McCormack, 2017). In residential care units for older people, there is evidence of an association between staff's perception of the organisational and psychosocial working environment and the quality of person-centred care (Sjögren et al., 2014, 2017). Equally, the findings of Kvæl and Bergland's study (2021) with older adults, their relatives and healthcare professionals in intermediate care in Norway show the practice environment is vital for optimal person-centred care. Recently, the results of a multidisciplinary study by McCance and colleagues (2021), statistically supported the Person-centred Practice Framework, and thus also confirmed the Person-Centred Practice Inventory – Staff (PCPI-S; Slater et al., 2017) to be a valid tool for accurate measurement of the constructs relevant to achieving this standard of care.

In their review of research conducted among registered nurses, mainly in a hospital setting, Keyko and colleagues (2016) concluded that research on the antecedents of work engagement is more common than research on outcomes of engagement. They point to the need for more global research on the influencing factors and the organisational and patient-related outcomes of nurses' work engagement across broader practice settings and within various organisations. In a meta-analysis of longitudinal studies on the JD-R model, Lesener and colleagues (2019) call for more such research and studies that also examine staff wellbeing as a mediator in relation to working environment conditions and different positive and negative outcomes.

Abdelhadi and Drach-Zahavy (2012) found that nurses' work engagement mediates the relationship between staff's socially shared service climate perceptions and their observed patient-centred care behaviours. Based on interviews with healthcare workers in long-term care services in Norway, Midje and colleagues (2021) concluded that work engagement both influences and is influenced by factors related to the attributes of staff and the care environment, and thus improves staff ability to engage in person-centred processes; this study follows up that 2021 study. To the best of the authors' knowledge, this is the first study to use the PCPI–S (Slater et al., 2017) to measure care processes and to explore the influence on them of job resources and job demands via investigating work engagement as one possible underlying mechanism.

Aims

This study aimed to explore the relationships between working environment conditions (job resources and job demands), work engagement and person-centred processes among nursing staff in municipal long-term care services in Norway. It uses the terms 'person-centred processes' and 'care processes' interchangeably; by 'care processes' the authors are focusing on them with respect to the essential principles for person-centred practice. Based on previous research and theory, the following hypotheses were advanced:

- Hypothesis 1: Job resources have a positive association with care processes
- Hypothesis 2: Job resources have a positive association with work engagement
- Hypothesis 3: Job demands have a negative association with care processes

Midje and colleagues (2021) concluded that work engagement improves nursing staff's ability to engage in person-centred processes but did not report on whether this was a direct, moderated or mediated effect. Through three additional hypotheses, this study set out to investigate care processes as an outcome of work engagement and consider how the level of job resources impacts care processes through engagement:

- Hypothesis 4: Work engagement has a positive association with care processes
- Hypothesis 5: Work engagement moderates the effects of job resources on care processes
- Hypothesis 6: Work engagement meditates the effects of job resources on care processes

Method

Setting and participants

This cross-sectional study took place in a municipality in southeastern Norway and was conducted in care services providing long-term stays for people living with complex and/or chronic health conditions. Study participants were a multidisciplinary sample of nursing staff – registered nurses and licensed and non-licensed nursing assistants – all drawn from selected units of nursing homes and care homes. In Norway, nursing homes are institutions offering private rooms and full-time assistance and healthcare services to older people (>67 years), often with a diagnosis of dementia (Grødem, 2018). Care homes are sheltered homes targeted at older persons and/or persons who have a disability (>18 years) and have round-the-clock caring needs (Grødem, 2018). The term 'older adults' is used as a shorthand to refer to the residents in both settings, because older adults so heavily outnumbered younger persons with a disability.

In Norway, the municipalities are responsible for the organisation of primary care and social services, and also for the financing through co-payments with the National Insurance Scheme, municipal general tax revenue, earmarked state block grants and, to some extent, user payments (Grødem, 2018; Sperre Saunes et al., 2020). The nursing homes and care homes included in this study were all nonprofit and owned and managed by the local municipal government. Although ranging in institutional size from 44 to 100 beds, the featured working units were quite similar in terms of resident characteristics (that is, mostly involved with elderly populations with complex health challenges) and organisational factors, such as staffing, skill-mix, daily management and service routines, and environment.

Recruitment and data collection

This study used (baseline) data collected from December 2019 to February 2020 during an interventional study to conduct an effect- and process-evaluation of a group-based course programme for increased work engagement. In collaboration with the director of the municipal department of health, a sample of nursing staff from six institutional care services, representing four working units in nursing homes and two in care homes, were purposively selected to participate in the interventional study. Inclusion criteria at unit level were: i) experiencing various working environment challenges and high sick leave, ii) the local management and the unit's union and safety representatives agreeing on the need for assistance, iii) not having previously participated in the work engagement intervention, and iv) currently not undergoing any other group-based interventions. Inclusion criteria at the individual level were: i) having permanent employment or a fixed-term contract, ii) working in at least a quarter-time position, and iii) being willing to participate.

In a plenary meeting with all the local senior and middle managers and unit union and safety representatives, the first author (HHM) described the project, supported by a visual presentation. All invited working units agreed to participate. Some weeks later, all employees were invited to a meeting for each participating unit to be informed about the project, to have their questions answered and to complete a self-report paper-based questionnaire. The first author distributed the questionnaires and was physically present throughout to offer help in answering them, together with a co-worker from the health and safety service. The questionnaires were completed anonymously and submitted in sealed envelopes.

Sample size

Of 130 employees invited to participate in the interventional study, 128 agreed. Nevertheless, in March 2020, that study had to be terminated because of the outbreak of the Covid-19 pandemic in Norway. It was decided to use the (baseline) data already collected as the basis of a cross-sectional study. Consequently, a traditional power analysis was not performed for the present study. However, based on the set sample size of 128 individuals, the number of independent variables included in the planned statistical analysis was assessed by the formula n >50 + 8m (where m equals the number of independent variables) devised by Tabachnick and Fidell (2019). According to this formula, the sample size was sufficient to investigate a regression model with five variables.

Measures

Demographic factors

Information about sex, age, profession, employment status, position (full or part time) and tenure (years at the current facility) was collected.

Working environment conditions

Organisational and psychosocial conditions in the working environment were assessed by a selection of variables from KIWEST 2.3, an instrument aimed for use in workplace interventions and in research (Innstrand et al., 2015; Undebakke et al., 2015). KIWEST is developed in a Norwegian university setting and has proven valid and reliable psychometric properties (Innstrand et al., 2015). The theoretical underpinning of the measure is the Job Demands-Resources (JD-R) model (Bakker and

Demerouti, 2007; Bakker et al., 2014). KIWEST covers a selection of well-known job demands and job resources and is based on previously validated and standardised European and Nordic measures, such as the Copenhagen Psychosocial Questionnaire (COPSOC II; Pejtersen et al., 2010) and the Nordic Questionnaire on Positive Organisational Psychology (N-POP; Christensen et al., 2012). The selection of variables from KIWEST 2.3 was based on the most regularly included variables in research testing the JD-R theory.

Job resources included in the present study are: work being meaningful, social community, investment in development and job autonomy. Job demands included are: illegitimate work tasks, role conflict and role overload. All resources and demands were developed as individual variables (construct level) and included in a composite measure (concept level), and analysed accordingly. Items were scored on a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

Work engagement
Work engagement was measured using the Norwegian version of the nine-item Utrecht Work Engagement Scale, UWES-9 (Schaufeli et al., 2002, 2006; Nerstad et al., 2010). UWES-9 is the most-used measurement of work engagement (Bailey et al., 2017) and consists of three items for each of its three constituent constructs – vigour, dedication and absorption. Items were scored using a seven-point Likert scale, ranging from 0 (never) to 6 (daily). As recommended by Schaufeli and Bakker (2010), the analysis included all nine items in a composite measure (concept level).

Person-centred processes
The Norwegian translation and cultural adaptation of the Person-centred Practice Inventory – Staff, PCPI-S (Bing-Jonsson et al., 2018), was used to assess person-centred processes. Aligned with the Person-centred Practice Framework by McCance and McCormack (2017), the 59-item PCPI-S tool is developed to measure 17 essential constructs for the provision of person-centred care among healthcare workers across a range of settings. These constructs pertain to the following three concepts of the Person-centred Practice Framework: prerequisites, care environment and care processes. In this study, only the 16 items constituting the five constructs of care processes – working with patients' beliefs and values, shared decision making, engagement (that is, engaging authentically in the person), sympathetic presence and holistic care – were included in the statistical analysis. All items in the PCPI-S are measured on a five-point Likert scale, ranging from 1 (totally disagree) to 5 (totally agree). The five constructs of care processes were developed as individual variables (construct level) and included in a composite measure (concept level) and analysed accordingly.

Statistics
Scale means were used as construct indicators. Negatively framed items were reversed before the calculation of scale means. The overarching concept levels – job resources, job demands, work engagement and care processes – were calculated by averaging across scale means for each of their constituent constructs. Within the total data material, there were just three missing items. Only participants with complete data were included when calculating the mean scores and conducting the data analyses. Data were analysed using IBM's Statistical Package for the Social Sciences (SPSS) version 28.0. A simple moderation and mediation model was tested by using the macro called PROCESS 4.0 for SPSS (Hayes, 2018).

Ethics
The research was conducted according to the Helsinki Declaration (World Medical Association, 2017) and approved by the Norwegian Centre for Research Data and the municipality's data protection officer. The study was set to adopt the values and methods for doing person-centred research (McCormack, 2003). This included, for example, the first author being open to the participants about her intentions and motivations for the study, attentive and committed to dialogue, and sensitive to the context of practice (McCormack, 2003; Jacobs et al., 2017). Participation in the study was strictly voluntary and

signed informed consents were collected. Participants were guaranteed confidentiality and anonymity during the whole process and informed about their right to withdraw from the study at any time and without consequences. Participants were informed by the local management about the change from an interventional study to a cross-sectional survey. With the first author working as a health and safety consultant in the municipality, the participating nursing staff were assured of onsite support in acting on results of the survey.

Results

Descriptive data

The demographic characteristics of the total sample are presented in Table 1.

Table 1: Demographic characteristics of total sample of nursing staff (n=128)

Gender	• Female: 105 (82%) • Male: 23 (18%)
Age (years)	• <30: 16 (13%) • 30-39: 38 (30%) • 40-49: 34 (27%) • 50-59: 29 (23%) • >60: 11 (9%)
Profession	• Registered nurses: 43 (34%) • Licensed nursing assistants: 60 (47%) • Non-licensed nursing assistants: 25 (19%)
Employment status	• Permanent: 122 (95%) • Temporary: 6 (5%)
Position (full or part time)	• 100 per cent: 68 (53%) • 50-99 per cent: 50 (39%) • 25-49 per cent: 10 (8%)
Tenure (years)*	• <5: 33 (26%) • 5-9: 43 (34%) • >10: 52 (41%)

Percentages rounded to the nearest whole number

Table 2 presents all items and variables included in the analysis of the study. To describe the sample and assess the internal consistency of the variables, mean, standard deviation (*SD*), range and Cronbach's coefficient alpha (α) were calculated. The Cronbach's α ranged from 0.52 (role conflict) to 0.85 (work engagement). At concept level, the mean value for care processes was 4.09 (*SD*=0.46) and for work engagement 4.81 (*SD*=0.92).

Table 2: Item content, descriptive data and internal consistency of variables among nursing staff (n[a]=128)

Constructs[b]	α	Mean (*SD*)	Min-Max	Items included[c]
Resources[d]		3.80 (0.46)	2.6-4.8	
Work being meaningful	0.61	4.20 (0.57)	2.3-5.0	• My work is meaningful • I feel that the work I do is important • I feel motivated and involved in my work
Social community	0.65	4.09 (0.63)	2.3-5.0	• There is a good atmosphere between me and my colleagues • There is a good sense of fellowship between the colleagues at my unit • I feel that I am part of a community in my unit
Investment in development	0.71	3.42 (0.62)	1.4-5.0	• My unit is constantly evolving to meet the employees' needs • In my unit, no one listens to new suggestions and ideas • My unit is flexible and continually adapts to new ideas • My unit is open-minded and adapts to changes • My unit strives to retain status quo rather than to change
Job autonomy	0.59	3.49 (0.63)	1.5-4.8	• I have a sufficient degree of influence in my work • I can make my own decisions on how to organize my work • There is room for me to take my own initiatives at work • I manage my own work situation in the direction I want
Demands[d]		3.07 (0.57)	1.5-4.3	
Illegitimate work tasks	0.65	2.88 (0.75)	1.0-5.0	• I must carry out work that I think should be done by someone else • I must carry out work that I feel demands more of me than is reasonable • I must carry out work that put me into awkward positions • I must carry out tasks that I think are unfair that I should do
Role conflict	0.52	2.90 (0.67)	1.0-4.3	• I have to do things that I feel should be done differently • I am often given assignments without adequate resources to complete them • I frequently receive incompatible requests from two or more people • My job involves tasks that are in conflict with my personal values
Role overload	0.59	3.43 (0.78)	1.3-5.0	• I have enough time to do what is expected from me at work • It happens quite often that I have to work under heavy time pressure • I frequently have too much to do at work
Work engagement[e]	0.85	4.81 (0.92)	2.1-6.0	
				• At my work, I feel bursting with energy • At my job, I feel strong and vigorous • When I get up in the morning, I feel like going to work • I am enthusiastic about my job • My job inspires me • I am proud of the work that I do • I feel happy when I am working intensely • I am immersed in my work • I get carried away when I am working
Care processes[d]		4.09 (0.46)	2.4-5.0	
Working with patients' beliefs and values	0.70	4.03 (0.49)	2.5-5.0	• I integrate my knowledge of the person into care delivery • I work with the person within the context of their family and carers • I seek feedback on how people make sense of their care experience • I encourage the people to discuss what is important to them
Shared decision-making	0.73	3.86 (0.66)	2.0-5.0	• I include the family in care decisions where appropriate and/or in line with the person's wishes • I work with the person to set health goals for their future • I enable people receiving care to seek information about their care from other healthcare professionals
Engaging authentically	0.80	4.13 (0.58)	2.0-5.0	• I try to understand the person's perspective • I seek to resolve issues when my goals for the person differ from theirs • I engage people in care processes where appropriate
Sympathetic presence	0.81	4.19 (0.54)	2.0-5.0	• I actively listen to people receiving care to identify unmet needs • I gather additional information to help me support the people receiving care • I ensure my full attention is focused on the person when I am with them
Providing holistic care	0.74	4.27 (0.52)	2.3-5.0	• I strive to gain a sense of the whole person • I assess the needs of the person, taking account of all aspects of their lives • I deliver care that takes account of the whole person

α=Cronbach's alpha SD=standard deviation
a) n=127 for the constructs 'Investment in development' and 'Role conflict' and for the concept 'Work engagement'
b) The constructs of Resources, Demands, Work engagement, and Care processes are presented at concept level
c) Items included: Precise wording in English from the original questionnaires
d) Resources, demands and care processes scoring: Likert scales with response options between 1=Strongly disagree and 5=Strongly agree
e) Work engagement scoring: Likert scales with response options between 0=Never and 6=Every day

Working environment, work engagement, and care processes

Table 3 shows bivariate correlations between all variables at construct level. Just over half the correlations between the different constructs of care processes and job resources were significantly positive. Most of the associations between care processes and job demands were negative, but none significantly so.

Table 3: Bivariate correlations (Pearson *r*) at construct level† for all variables among nursing staff (n=128††)

Scales	1	2	3	4	5	6	7	8	9	10	11	12
Resources												
Work being meaningful	1											
Social community	0.38***	1										
Investment in development	0.45***	0.43***	1									
Job autonomy	0.38***	0.43***	0.39***	1								
Demands												
Illegitimate work tasks	0.00	-0.33***	-0.20*	0.01	1							
Role conflict	-0.21*	-0.33***	-0.30***	-0.12	0.47***	1						
Role overload	-0.10	-0.30***	-0.17	0.01	0.34***	0.35***	1					
Dependent variables												
Work engagement												
	0.40***	0.37***	0.29***	0.23**	-0.12	-0.24**	-0.34***	1				
Care processes												
Patients' beliefs and values	0.27**	0.23**	0.29**	0.28***	-0.02	-0.09	-0.02	0.10	1			
Shared decision making	0.12	0.24**	0.22**	0.15	-0.04	-0.04	0.11	0.17	0.64***	1		
Engaging authentically	0.09	0.13	0.20*	0.14	-0.04	-0.07	0.15	-0.07	0.64***	0.65***	1	
Sympathetic presence	0.23**	0.18*	0.23**	0.09	-0.08	-0.14	-0.08	0.14	0.59***	0.56***	0.63***	1
Providing holistic care	0.23**	0.20*	0.19*	0.17	-0.04	-0.07	-0.08	0.06	0.55***	0.53***	0.60***	0.68***

†Work engagement is included in the analysis at concept level
††n=127 for the constructs 'Investment in development' and 'Role conflict' and for the concept 'Work engagement'
**P < 0.05, **P < 0.01; ***P < 0.001*

Table 4 shows bivariate correlations between all variables included in the analyses – that is, at concept level. It also includes the demographic factors gender, age, profession and tenure. The associations between job resources and care processes were positive (*r*=0.31), meaning that employees experiencing high levels of person-centred processes also experience high levels of resources. Work engagement was positively correlated with job resources (*r*=0.43) and negatively correlated with job demands (*r*=-0.30), indicating that employees scoring high on resources and low on demands are more likely to score high on engagement. The correlation between work engagement and care processes at concept level was low (*r*=0.10), indicating no association between employees' level of engagement and care processes. Gender, age and tenure did not correlate significantly with any of the other variables. Nevertheless, nurses were more likely to report high levels of job resources and care processes than nursing assistants.

Table 4: Bivariate correlations[†] (Pearson *r*) at concept level for all variables among nursing staff (n=127[††])

Scales	1	2	3	4	5	6	7
Demographic factors							
1. Gender (female=1, male=2)	1						
2. Age[a]	-0.15	1					
3. Profession (nurse=1, other=2)	0.12	0.02	1				
4. Tenure[b]	-0.16	0.47***	0.09	1			
Independent variables							
5. Job resources	0.03	0.06	-0.18*	-0.01	1		
6. Job demands	-0.01	-0.09	-0.14	0.12	-0.30***	1	
Dependent variables							
7. Work engagement	0.01	0.13	-0.02	0.11	0.43***	-0.30***	1
8. Care processes	-0.03	-0.01	-0.20*	-0.09	0.31***	-0.05	0.10

[†]Correlations for Gender and Profession are point-biserial correlations
[††]n=128 for all the demographic factors
a) Age is coded 1=<30 years, 2=30-39 years, 3=40-49 years, 4=50-59 years, 5=≥60 years
b) Tenure is coded 1=<5 years, 2=5-9 years, 3=≥10 years
**P < 0.05, **P < 0.01; ***P < 0.001*

Work engagement as a moderating or mediating factor

Hypotheses 1 and 2 were supported, as the results showed that nursing staff experiencing high levels of job resources reported higher levels of care processes and work engagement than staff low on resources. According to the findings, hypotheses 3 and 4 were not supported, as care processes were neither negatively associated with job demands nor positively associated with work engagement. Hypothesis 5 was not supported, as the results from the moderated regression model indicated that engagement did not moderate the effects of job resources on care processes when controlled for the effects of job demands (Table 5). The interaction term was not statistically significant and including this term in the model did not account for any added variation in care processes.

Table 5: Moderated regression with care processes as dependent variable (n=127)

	β	*95% CI*	*t*	*p*	*R*	R^2
Model summary					0.31	0.10
Constant	-0.01	-0.19, 0.18	-0.06	0.96		
Job resources (JR)	0.34***	0.14, 0.53	3.41	0.00		
Work engagement (WE)	-0.03	-0.23, 0.17	-0.30	0.77		
Interaction term (JRxWE)	0.00	-0.17, 0.17	0.05	0.96		
Job demands	0.04	-0.14, 0.23	0.48	0.63		

*β=Standardized Coefficients Beta CI=Confidence Interval *P < 0.05, **P < 0.01; ***P < 0.001*

Hypothesis 6 was not supported, as the results showed that engagement did not mediate the effects of job resources on care processes (Table 6). Analysing the indirect effect, the findings indicated this effect to be small and not significantly different from zero, as the bootstrap confidence interval included zero (Hayes, 2018).

Table 6: Mediation analysis: path estimates (n=127)

	β	*95% CI*†	*t*	*p*	*R*	R^2
Dependent variable: work engagement						
Model summary					0.47	0.22
Constant	0.00	-0.15, 0.16	0.05	0.96		
Job resources	0.37***	0.21, 0.54	4.44	0.00		
Job demands	-0.19*	-0.36,-0.03	-2.32	0.02		
Dependent variable: care processes						
Model summary					0.31	0.10
Constant	-0.00	-0.17, 0.17	-0.00	1.00		
Job resources	0.34***	0.14, 0.53	3.44	0.00		
Work engagement	-0.03	-0.22, 0.16	-0.31	0.76		
Job demands	0.04	-0.14, 0.23	0.48	0.63		
Indirect effect						
Mediation effect of work engagement	-0.01	-0.07, 0.05				
Total effect model: care processes						
Model summary					0.31	0.10
Constant	-0.00	-0.17, 0.17	-0.00	1.00		
Job resources	0.32***	0.15, 0.50	3.60	0.00		
Job demands	0.05	-0.13, 0.23	0.56	0.58		

*β=Standardized Coefficients Beta CI=Confidence Interval *P < 0.05, **P < 0.01; ***P < 0.001*

† *95% CI estimated using bootstrap method with 5000 resamples*

Discussion

This study investigated the associations between conditions in the working environment, work engagement and person-centred processes. The results show job resources are positively associated both with care processes and work engagement (hypotheses 1 and 2). No association was found between job demands and care processes (hypothesis 3), or between work engagement and care processes (hypothesis 4). The results suggest work engagement neither moderates nor mediates the effects of job resources on care processes (hypotheses 5 and 6).

Using the nine-item Utrecht Work Engagement Scale (UWES-9; Schaufeli et al., 2002, 2006), the mean score on work engagement in this study was 4.81 (on a Likert scale ranging from 0 to 6) among nursing staff in Norway. In a study by Hakanen and colleagues (2019), data from various work- and organisation-related groups in 30 European countries were collected to measure work engagement. Assessed with a three-item version of UWES and resulting in a mean score of 4.04, their findings show health and social care workers to be among the groups experiencing the highest levels of engagement. Van den Broeck and colleagues (2017) show similar results, finding work engagement to be higher in the Belgian healthcare sector than in the industrial, service or public sectors. In that study, work engagement was assessed using UWES-9 and resulted in a mean score of 5.4 among healthcare workers. Compared with the findings of the two studies cited, the mean score on work engagement in this study falls somewhere in between and thus indicates high levels of engagement among nursing staff in municipal long-term care services in Norway.

Among the aspects of the working environment that are important to work engagement in various occupational groups and sectors are 'social resources' (such as co-worker and supervisor support, and social relations), 'task-related resources' (such as autonomy, feedback, team empowerment and skill discretion) and 'development resources' (such as feedback and learning opportunities) (Hakanen et al., 2021; Mazzetti et al., 2021). Nevertheless, the relative importance of the different types of resources varies depending on time and context (Hakanen et al., 2021; Mazzetti et al., 2021). This study confirms work engagement to be positively associated with the 'social resource' of social community (colleague fellowship), the 'task-related resources' of job autonomy (job control) and work being meaningful (knowing the meaning and purpose of one's job), and the 'development resource' of investment in development (innovation in the organisational unit). Lesener and colleagues (2020) concluded that resources at organisation level (such as autonomy, development opportunities and role clarity), at group level (such as social support and support climate) and at leadership level (such as supervisor support and feedback) are all strong and stable predictors of work engagement over time. Still, in that study, organisation-level resources reflecting the design and management of work seem the strongest contributors.

Within nursing, previous studies have consistently shown work engagement to be positively influenced by job resources such as social support, autonomy, reward, feeling part of a community and managers' leadership (García-Sierra et al., 2016; Keyko et al., 2016). In this study, engagement was associated with all four included job resources, but most strongly with autonomy. This is in line with the results of a concept analysis of work engagement in nursing by Bargagliotti (2012), where autonomy and trust were classified as relational resources inherent in and fundamental to nurses' professional practice and more likely to explain work engagement than other types of resources. Further, a recent cross-sectional study among 552 nurses in 1,200 nursing homes in Japan shows autonomous clinical judgement, as a constituent factor of professional autonomy, to be positively associated with nurses' work engagement (Hara et al., 2021).

In this study, work engagement was negatively associated with job demands and positively associated with job resources at both construct and concept levels. However, the traditional JD-R conceptualisation of demands as solely negative and resources as solely positive has been challenged (Crawford et al., 2010; Bakker and Sanz-Vergel, 2013; Noesgaard and Hansen, 2018). In two separate studies among nursing staff in home caregiving organisations for older people, work pressure, emotional work and the opportunity to help patients in need were experienced to have both hindrance and challenge effects – that is, having both negative and positive impacts on work engagement depending on the occupational group and individual perceptions of the setting (Bakker and Sanz-Vergel, 2013; Noesgaard and Hansen, 2018). In our study, the number of included job demands and job resources was limited and neither did we focus on their possible dual effects on engagement. Hence, there still is a need for continued organisational interest and research on work engagement and its various types of antecedents and their differential impact on engagement across a broad range of occupational groups and settings, and over time (Lesener et al., 2019; Hakanen et al., 2021; Mazzetti et al., 2021).

In a cross-sectional study based on a multidisciplinary sample of health professionals in Ireland, McCance and colleagues (2021) report evidence to support the Person-centred Practice Framework, which posits that the provision of person-centred outcomes for all is a complex and demanding process dependent on individual, environmental and organisational factors. Using the Person-centred Practice Inventory – Staff (Bing-Jonsson et al., 2018) to measure care processes and resulting in a mean score of 4.09 (Likert scale 1 to 5), this study's findings indicate that a high level of person-centred care is currently provided by nursing staff in care homes and nursing homes in a municipality in Norway. This resembles the results of a study by Slater and colleagues (2015) among registered nurses in acute hospital settings in the UK. That study shows high scores (mean scores above 4) for each of the five constructs making up the concept of care processes.

A study by Kvæl and Bergland (2021) in intermediate care services in Norway concludes it is crucial to take into account both physical and psychosocial conditions in the environment in order to facilitate patient participation – a key factor of high-quality person-centred care. Lower levels of job strain and higher levels of social support are identified as substantial contributors to variation in person-centred care (Sjögren et al., 2014). This study confirms an association between certain working environment conditions (work being meaningful, social community, investment in development and job autonomy) and care processes. This highlights the dependent relationship among key concepts of the Person-centred Practice Framework and that in relation to achieving the outcomes of high-quality care processes and a healthful culture, the care environment must be considered (McCance and McCormack, 2017). Further, this study shows that work engagement and care processes share similar antecedents; in an earlier study (Midje et al., 2021) the authors suggest that in nursing, work engagement and its antecedents (such as commitment to the job, effective staff relationships and power sharing) and outcomes of engagement (such as authentic engagement and sympathetic presence), resemble key constructs in the Person-centred Practice Framework. Thus, the working environment conditions associated with engagement found in this study seem to be consistent with the enabling factors for effective and healthful workplace cultures focused on providing sustainable and high-quality person-centred care based on the participation of all, and person-centred ways of working in collaborative teams (Cardiff et al., 2020; Edgar et al., 2020).

Within healthcare settings, work engagement is found to be valuable to nurses' performance (García-Sierra et al., 2016; Keyko et al., 2016; De Simone et al., 2018; Wee and Lai, 2021). In this study, the choice of introducing work engagement as an antecedent to care processes particularly is inspired by the research by the authors' earlier research (Midje et al., 2021). Based on personal interviews with healthcare workers, the 2021 study shows engagement is experienced as positively influencing employees' perceived ability to exhibit high-quality person-centred behaviours in a natural setting. Nevertheless, the results from this study do not support an association between work engagement and care processes. This is in line with the results of a study among hospital nurses by van Bogaert and colleagues (2017), showing the direct impact of work engagement on nurse-assessed quality of care to be less relevant – that is, with an explained variance of ≤5%. The meta-analysis and systematic review of work engagement and patient quality of care by Wee and Lai (2021), on the other hand, shows engagement is positively associated with quality of care and that the association is stronger if quality of care is measured by self-assessment.

The JD-R model postulates that the impact of job resources on various positive job-related outcomes increases where work engagement is present (Schaufeli and Taris, 2014). Hence, the choice of investigating engagement as a moderator/mediator in this study is based on the theoretical arguments within that model. Nevertheless, this study's analyses show engagement neither moderates nor mediates the effects of job resources on care processes. This is contrary to the results of a study by Abdelhadi and Drach-Zahavy (2012) among 158 nurses working in retirement homes in Israel, which shows motivated and engaged nurses exhibit higher-quality person-centred care behaviours than others who are less engaged. Also, those authors report the service climate in the ward was positively associated with nurses' work engagement, and that engagement mediated the effects of the service climate on nurses' person-centred care behaviours. Further, a study by van Bogaert and colleagues (2014) among 1,201 registered hospital nurses in Belgium suggests both work engagement and certain environmental conditions (such as perceived workload, social capital and decision latitude), mediate the effects of the nurse practice environment (that is, the nurse-physician relationship, nurse management, hospital management and organisational support) on nurse-assessed quality of care. A possible explanation for the lack of support for a moderating/mediating effect of engagement in this study can be found in a meta-analysis focused on antecedents and outcomes of work engagement by Mazzetti and colleagues (2021). In that study, there is a stronger association of engagement with attitudinal variables (such as job satisfaction and job commitment) than behavioural and intentional variables (such as turnover intention, job performance and health). Their results confirm job performance as an outcome of work engagement but suggest the link is not a strong one.

The PCPI-S (Slater et al., 2017) is confirmed as a valid and reliable tool, well aligned to the Person-centred Practice Framework, and thus it permits the comparison of evidence internationally (McCance et al., 2021). To the best of the authors' knowledge, there are no other studies using PCPI-S to investigate associations between working environment conditions, work engagement and care processes. Being the first study to explore care processes as an outcome of engagement, this research offers new knowledge about the category of performance and care outcomes, as described by Keyko and colleagues (2016). Further research is needed to offer better insight in articulating the relationships between conditions in the nursing staff's working environment, work engagement, patient-related outcomes and the development of person-centred practices and cultures.

Strengths and limitations

This study features a cross-sectional design with data collected at a single time point, meaning the effects between variables cannot be interpreted as causal relationships. Relying on self-reported data, the findings may be influenced by common method bias. Nevertheless, Theorell and Hasselhorn (2005) argue that cross-sectional study designs and subjective assessment methods of psychosocial conditions and health play an important role in identifying risks and groups of risk in a research field that has not been properly investigated.

All variables showed satisfying internal consistency, except for role conflict, which had a quite low Cronbach's alpha value (α=0.52) (Nunnally and Bernstein, 1994). This study's authors chose not to include data using the PCPI-S care environment concept because of concerns over statistical adequacy and also because the job resources from the JD-R model seemed to cover those aspects of the working environment. This study used the JD-R model as a point of departure, but it would be beneficial for future research to aim to test the whole Person-centred Practice Framework by using all concepts within the PCPI-S.

Although the response rate was 100%, the generalisability of the results regarding nursing home and care home settings may be limited because the study was conducted in a Norwegian context and with a lack of geographical spread across municipalities. Further, when focused on assessing person-centred processes, collecting the perspectives of the older adults themselves could have helped to inform the findings and contribute to a greater understanding. Nevertheless, because data were collected from the professional groups most directly involved in care processes, a broad range of experiences were captured. Also, the study provides new insight about the development of patient-related outcomes.

Conclusion

The present study investigates the associations among working environment conditions, work engagement and person-centred processes. The results reinforce much of what is known about the antecedents of work engagement, and support the association between nursing staff's perceived level of job resources on the one hand and work engagement and person-centred behaviours on the other. Nevertheless, a moderating/mediating effect of engagement is not supported. Taken together, the findings indicate that to provide effective care throughout the care processes, managing key conditions in the care environment is essential – and that work engagement as such is not necessary for person-centred processes to develop. However, promoting engagement still is worthwhile because of its other well-known positive effects at individual and organisational levels. Thus, this study provides an updated picture of empirical evidence and adds new theoretical insight to the JD-R theory applied to nursing staff within municipal long-term eldercare services in Norway. Further, the study highlights relevant topics for future research about work engagement within nursing and the development of person-centred practices and cultures.

Key messages for practice

- Understanding the associations between the antecedents of work engagement and care processes is important to the development of person-centred practices
- To promote employee engagement and person-centred processes, unit managers should invest in collaboration with nursing staff to provide job resources such as job control, colleague fellowship, meaningful tasks and scope for development
- Given the various challenging factors associated with long-term caregiving services, helping nursing staff to stay engaged in their work is important to secure future high-quality employee and organisational performance

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Hilde Hovda Midje (RPT, MSc), PhD candidate and member of the Research Group for Health Promotion in Settings, Department of Health, Social and Welfare Studies, University of Southeastern Norway, Horten, Norway; Consultant in the Health and Safety service in the municipality of Bærum, Norway.
Professor Steffen Torp (PhD), Professor, Research Group for Health Promotion in Settings, Department of Health, Social and Welfare Studies, University of Southeastern Norway, Horten, Norway.
Professor Kjell Ivar Øvergård (PhD), Professor, Research Group for Health Promotion in Settings, Department of Health, Social and Welfare Studies, University of Southeastern Norway, Horten, Norway.

Paper III

Midje, H. H., Nyborg, V. N., Nordsteien, A., Øvergård, K. I., Brembo, E. A., & Torp, S. (2024). Antecedents and outcomes of work engagement among nursing staff in long-term care facilities - A systematic review. *Journal of Advanced Nursing*, 80(1), 42-59. https://doi.org/10.1111/jan.15804

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REVIEW

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Antecedents and outcomes of work engagement among nursing staff in long-term care facilities—A systematic review

Hilde Hovda Midje[1] | Vibeke Narverud Nyborg[2] | Anita Nordsteien[3] | Kjell Ivar Øvergård[1] | Espen Andreas Brembo[3] | Steffen Torp[1]

[1]Research Group for Health Promotion in Settings, Department of Health, Social and Welfare Studies, University of South-Eastern Norway, Borre, Norway

[2]Department of Nursing and Health Sciences, University of South-Eastern Norway, Drammen, Norway

[3]Centre for Health and Technology, Faculty of Health and Social Sciences, University of South-Eastern Norway, Drammen, Norway

Correspondence
Hilde Hovda Midje, Research Group for Health Promotion in Settings, Department of Health, Social and Welfare Studies, University of South-Eastern Norway, Raveien 215, 3184 Borre, Norway.
Email: hilde.h.midje@usn.no

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Abstract

Aim: To determine antecedents and outcomes of work engagement (WE) among nursing staff in long-term care (LTC) using the Job Demand-Resources model.

Design: A systematic review following the Preferred Reporting Items for Systematic Review and Meta-Analysis statement and Synthesis Without Meta-analysis in systematic reviews guideline. A study protocol was registered in PROSPERO (registration number CRD42022336736).

Data Sources: The initial searches were performed in PsycInfo, Medline, Academic Search Premier, CINAHL and Scopus and yielded 3050 unique publications. Updated searches identified another 335 publications. Sixteen studies published from 2010 to 2022 were included.

Review Methods: The screening of titles and abstracts, and subsequently full-text publications, was performed blinded by two author teams using the inclusion/exclusion criteria. When needed, a mutual consensus was obtained through discussion within and across the teams. A descriptive and narrative synthesis without a meta-analysis of the included studies was performed.

Results: The extent of research on WE in LTC facilities is limited and the factors examined are heterogeneous. Of forty-two unique antecedents and outcomes, only three factors were assessed in three or more studies. Antecedents—in particular job resources—are more commonly examined than outcomes.

Conclusion: Existing literature offers scant evidence on antecedents and outcomes of WE among nursing staff in LTC facilities. Social support, learning and development opportunities and person-centred processes are the most examined factors, yet with ambiguous results.

Impact: Antecedents and outcomes of engagement among nursing staff in LTC facilities have not previously been reviewed systematically. Engagement has been correlated with both more efficient and higher-quality service delivery. Our findings suggest opportunities to improve health and care services by enhancing engagement, whilst at the same time better caring for employees. This study lays the groundwork

for more detailed research into the contributing factors and potential results of increasing caregivers' engagement.
No patient or public contribution.

KEYWORDS
health promotion, JD–R model, job demands, job resources, long-term care, nursing, occupational, systematic review, work engagement, working environment

1 | INTRODUCTION

Over the next 30 years, the number of people in the age groups 65+ and 80+ in the European Union will grow by 70 per cent and 170 per cent, respectively (European Union, 2007). We can assume similar demographic projections globally, and in some regions—for example, in central Asia and eastern Europe—this trend is accompanied by a significant decrease in nurses (WHO, 2022). When home care services and/or families no longer can take care of persons with round-the-clock needs, long-term care (LTC) facilities are important institutions. LCT facilities—such as nursing homes and care homes—provide residential stays and services for mostly older adults (aged 65 and over) with complex and/or chronic physical and cognitive conditions. The most common employee providing direct care and assistance in daily living in LTC facilities is staff without tertiary medical qualification, such as healthcare assistants and auxiliary nurses, followed by those with qualifications, such as registered nurses and licensed practical and vocational nurses (Harris-Kojetin et al., 2019; WHO, 2022), with both groups subsequently referred to here as 'nursing staff'.

In general, healthcare organizations struggle to deal with individual and working environment conditions related to moderate to high levels of employee stress and burnout (Costello et al., 2019; Khatatbeh et al., 2022), high-employee turnover rates, an ageing workforce and high-turnover costs (Chu et al., 2014; Duffield et al., 2014; Halter et al., 2017; WHO, 2016, 2022). Recent studies conducted in LTC facilities have shown that this work setting has the potential to promote employees' professional and personal growth, job satisfaction and perceptions of positive and fulfilling work (Aloisio et al., 2019, 2021; Marshall et al., 2020; Squires et al., 2015; Vassbø et al., 2019). Nevertheless, studies among nursing staff in LTC have found that working conditions such as a hectic work environment, high levels of quantitative and physical job demands, exposure to role conflicts and threats and violence, as well as low levels of positive challenges, represent potential risks to employees' work engagement (WE) and health (Benders et al., 2019; Eriksen, 2006; Kubicek et al., 2013).

WE is a core concept in organizational psychology and behaviour and is associated with improved occupational well-being and performance (Bailey et al., 2017; Bakker et al., 2014). In healthcare, WE correlates with enhanced work-related motivation, reduced turnover intentions, improved quality of care and increased patient satisfaction (Broetje et al., 2020; De Simone et al., 2018; Keyko et al., 2016; McVicar, 2016; Van Bogaert et al., 2014; Zeng et al., 2022). Through targeted interventions, organizations can enhance employees' WE (Björk et al., 2021; Knight et al., 2019), an organizational imperative in healthcare settings that today are under pressure from (1) demographic changes leading to ageing populations, (2) health workforce shortages and high turnover rates and (3) unsustainably escalating healthcare costs (WHO, 2016, 2022). Meeting these challenges requires delivering services more effectively while also maintaining a high-care standard—ideally, integrated, person-centred care tailored to people's individual preferences and needs (European Union, 2007; WHO, 2016). To develop and sustain a workforce fit for the task requires care for the carers, which attention to employee engagement can help put in focus (WHO, 2016, 2022).

The antecedents and outcomes of WE among nursing staff exclusively working in LTC facilities are sparsely described and have not been reviewed systematically. Existing systematic reviews are mainly based on studies conducted with hospital nurses, with scant inclusion of other types of nursing staff or care settings. Because there are differences in the working environment and work relations (e.g., levels of peer support and teamwork) among these different professional cohorts, there is a need for more studies distinguishing between these settings (Tummers et al., 2013).

1.1 | Background

Schaufeli et al. (2002, p. 74) define WE as '… a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption'. Vigour—refers to a high level of energy, focused effort and persistence in one's work, dedication—to strong investment and enthusiasm, and absorption—to happy involvement, and the experience of time quickly passing (Schaufeli et al., 2002). WE most often is conceptualized and theorized within the Job Demands–Resources (JD–R) model and measured with the Utrecht Work Engagement Scale (UWES) (Bailey et al., 2017; Schaufeli et al., 2002, 2006). The first to introduce the JD–R model were Demerouti et al. (2001). Some years later, Bakker and Demerouti (2008) integrated existing research findings about WE into an overall model (Figure 1).

The JD–R model suggests that all working environments can be examined and explained by the main categories—job demands and job resources—in addition to the personal attributes of the individual worker (Bakker & Demerouti, 2008; Galanakis & Tsitouri, 2022; Schaufeli et al., 2002). Job resources have proven as the single most influential factor in WE (Bakker et al., 2014; Bakker & Demerouti, 2008). Examples of well-known job resources among

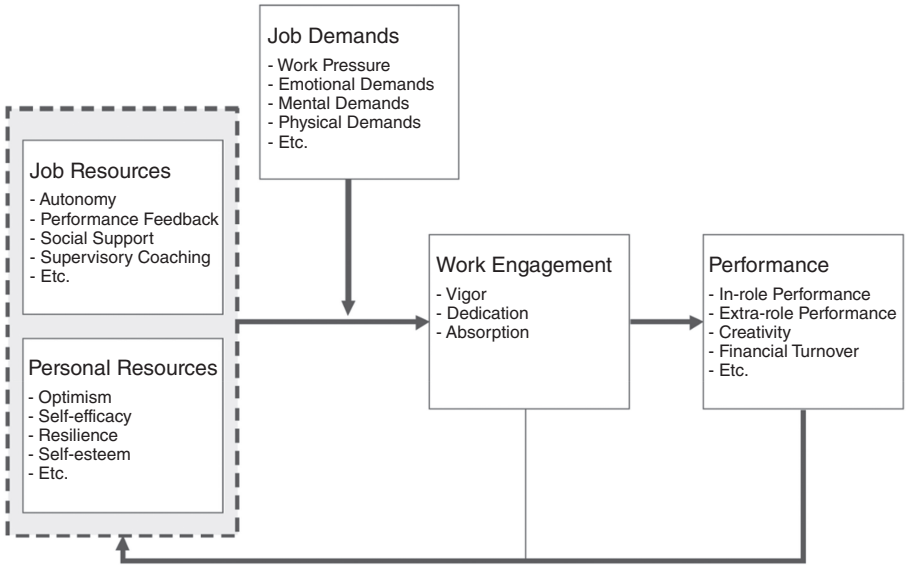

FIGURE 1 The Job Demands–Resources (JD–R) model of work engagement (Bakker & Demerouti, 2008).

nursing staff are—good interpersonal relations, authentic leadership styles, effective organization of tasks and work and autonomy (Broetje et al., 2020; García-Sierra et al., 2016; Keyko et al., 2016). Because job resources stimulate employees' job-related learning and development, they can play an intrinsic motivational role in leading to WE. Additionally, job resources can play an extrinsic motivational role in achieving work-related goals (Bakker et al., 2014). Personal resources, such as—optimism, self-efficacy and resiliency—represent positive self-evaluations with intrinsic motivational effects on employees' willingness to succeed in their work and manage challenging work situations (Bakker et al., 2014; Bakker & Demerouti, 2008). Personal resources are found to be associated with job resources but also as independent promoters of WE. Job demands, on the other side, are psychosocial, physical and organizational working conditions with physical and/or psychological costs because they require sustained physical and/or psychological effort (Bakker & Demerouti, 2007). Examples of job demands within nursing practice include work pressure as well as emotional and physical aspects of the job (Eriksen, 2006; Keyko et al., 2016; Kubicek et al., 2013).

A central claim in the JD–R model is that job resources and job demands interact in predicting employee well-being (Bakker & Demerouti, 2008). Job resources are found to counteract the negative effects of job demands, but at the same time, the influence of resources on WE are the highest when demands are high. Moreover, job resources and job demands are context-specific, which means that they vary between different work settings and professional groups (Bakker et al., 2014). Research in professional nursing practice has demonstrated a relationship between WE and various positive performance, professional and personal outcomes (García-Sierra et al., 2016; Keyko et al., 2016). Hence, a systematic review of the core antecedents and outcomes of LTC nursing staff's WE may offer much-needed knowledge for nursing and care homes to advance in quality and efficiency of the services delivered, while at the same time caring for the employees.

2 | THE REVIEW

2.1 | Aim

Framed within the JD–R model, this systematic review aims to determine (a) the antecedents—job resources, personal resources and job demands, and (b) outcomes of WE among LTC nursing staff.

2.2 | Design

To facilitate the consolidation of knowledge, a systematic review was conducted to map, appraise and synthesize data from empirical studies via a logical and linear process (Grant & Booth, 2009; Purssell & McCrae, 2020; Sutton et al., 2019). Applying a systematic review methodology and aiming for transparency and reproducibility, the retrieval and selection process was conducted and reported following the guidelines provided by PRISMA, the Preferred Reporting Items for Systematic Review and Meta-Analysis, 2020 Statement (Page et al., 2021) and SWiM, the Synthesis Without Meta-analysis in systematic reviews guideline (Campbell et al., 2020). A study protocol was registered on PROSPERO, the international prospective register of systematic reviews [CRD42022336736].

2.3 | Search methods

The initial systematic searches were carried out from April to May 2022. They were developed to identify original empirical research in the five electronic bibliographic databases: PsycInfo, Medline, Academic Search Premier, CINAHL and Scopus. An updated search was performed in November 2022 to identify and include the most recent studies and thus, enhance the timeliness of the systematic

review. A PRISMA flow diagram depicting the study selection process across both searches is shown in Figure 2.

Two specialist librarians were involved in the development of the search strategy, formulation of queries and compiling and deduplication of results. The SPIDER (Cooke et al., 2012) framework was used to specify the study objectives, develop the search strategy and define the criteria for selection. The term 'nursing staff' refers to healthcare workers categorized into main groups of registered nurses, auxiliary nurses and healthcare assistants. 'Long-term care (LTC) facilities' refers to nursing homes and care homes. For a more detailed description of the different types of nursing staff included in the searches, see Appendix S1.

The concepts of interest were categorized as follows:

- Sample/Setting—nursing staff involved in the direct care of older people living in LTC facilities,
- Phenomenon of Interest –WE,
- Design—descriptive, explorative and interventional/effect studies,
- Evaluation—levels/descriptions of WE and reports on antecedents and outcomes of WE,
- Research type—qualitative, quantitative, mixed-methods and multi-methods.

The three conceptual categories—sample (nursing staff), setting (LTC facilities) and phenomenon of interest (WE)—provided a basis for mapping subject headings, corresponding controlled terms and text words and were added to the search string in each of the selected databases, except Scopus because it lacks controlled terms. The final search strategy was developed in Medline and published on Figshare (Myrvold & Telle-Wernersen, 2022).

Preliminary test searches on 10 March 2022, using only subject headings, produced few results. However, when expanding the search to several databases and including text words and additional subject headings, it became clear that the strategy was not feasible to pursue due to a large increase in results combined with diminishing relevance. Hence, in the final version, the three conceptual categories were combined with Boolean AND. The search was limited

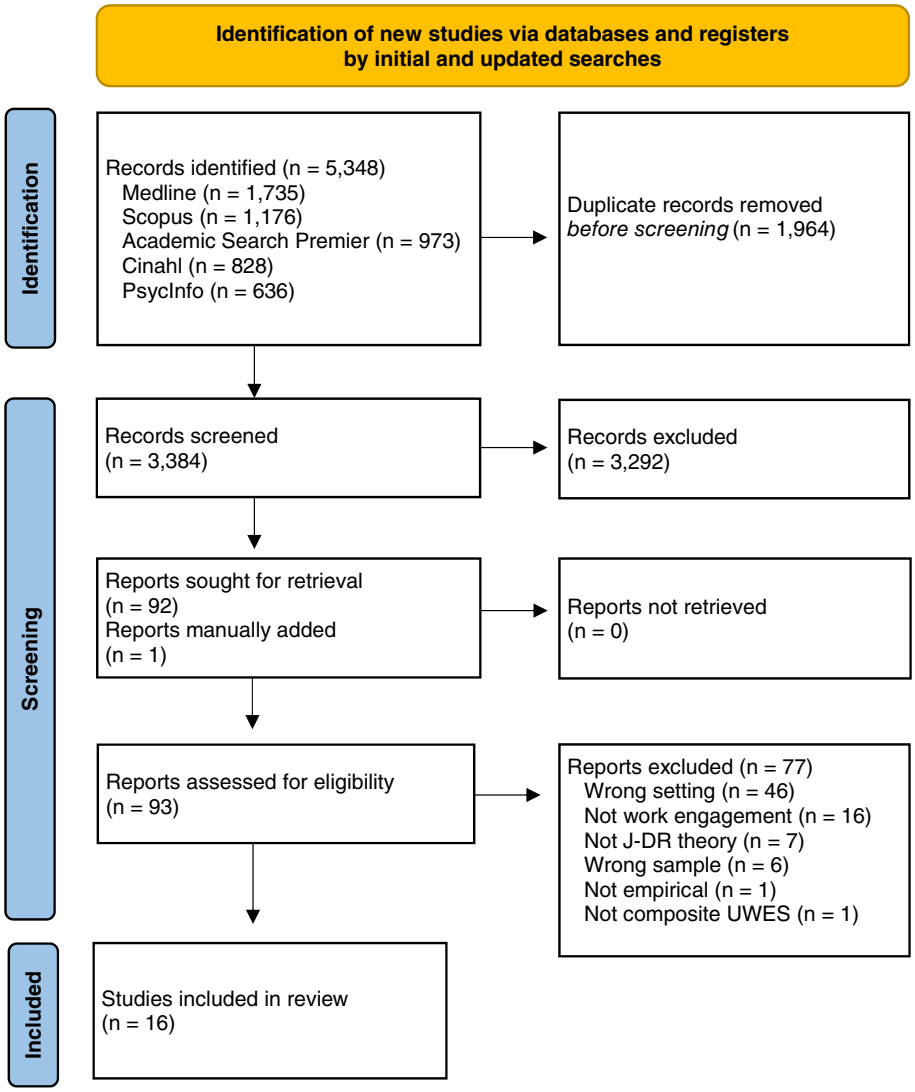

FIGURE 2 PRISMA flow diagram. (From: Page et al. (2021). For more information, visit: http://www.prisma-statement.org/).

to English and Scandinavian languages. Because the fully developed JD–R model was first available around the year 2000, the date limit for the search was set from then onwards.

2.3.1 | Eligibility criteria

Studies were eligible for inclusion if they examined the association between WE and its antecedents and outcomes among nursing staff most directly involved in the daily care of older adults with prolonged limited capacity for self-care living in LTC facilities. For studies involving multiple types of healthcare facilities, findings related to nursing and caring homes had to be presented separately to be included. Studies with mixed samples were included if the nursing staff all together made up more than 80% of the participants. The conceptualization of WE and its antecedents and outcomes had to be based on the JD–R model and assessed on the level of the individual with the validated and most used measure, the Utrecht Work Engagement Scale, UWES (Bailey et al., 2017; Schaufeli et al., 2002; Schaufeli et al., 2006). Research that utilized any of the stress models that the JD–R model builds upon, like Karasek's (1979) Job Demand-Control Model, but not the JD–R model itself, was not included. The reason is that the JD–R model has been further developed and is more comprehensive. Studies were eligible if they were peer-reviewed original empirical research—qualitative, quantitative or mixed/multi-methods. A detailed list of inclusion and exclusion criteria is presented in Table 1.

2.4 | Search outcomes and screening

The initial literature searches identified 4886 records, of which 1836 duplicates were removed. The screening of titles and abstracts of 3050 unique and potentially relevant publications against the inclusion criteria was conducted by two author teams using Rayyan, a free web tool (Ouzzani et al., 2016). Before starting, the two teams met to agree on some common guiding principles for the screening process. Each of the two authors (H.H.M. and V.N.N.) in the one team independently assessed 2050 articles, and each of the two authors (E.A.B. and A.N.) in the other team independently assessed the remaining 1000 articles. Using two teams in the screening was time-efficient and enabled interdisciplinary discussions and quality controls of the work. The few disagreements occurring within and across the two teams were resolved by discussions: for example, whether WE was the anchoring theme, whether to include less common clinical settings (such as hospital LTC hybrids) and determining types of participants in mixed samples.

A total of 84 articles were eligible for full-text screening. The first author screened all articles, while the other three screened 28 unique articles each. When needed, a mutual consensus on

TABLE 1 Inclusion and exclusion criteria.

	Inclusion criteria	Exclusion criteria
Publication year	Published between 1 January 2000 and 28 November 2022	
Language	English and Scandinavian	
Sample	Nursing staff—registered nurses, auxiliary nurses and healthcare assistants Public and private long-term care facilities—nursing homes and care homes for older and/or disabled people >18	Physicians Physiotherapists Occupational therapists Students Trainees Home-based care Hospitals
Phenomenon of interest	Work Engagement Antecedents of Work Engagement—job resources, personal resources and job demands Outcomes of Work Engagement	Burnout Job satisfaction Job/Organizational commitment
Design	Original empirical studies Descriptive studies—cross-sectional, longitudinal, prospective and/or retrospective designs Explorative studies Case studies/Series Interventional studies	Reviews Theoretical studies Conference papers Discussion papers Editorials Consensus documents Expert opinions Other non-research papers
Evaluation	Work Engagement—based on the Job Demands–Resources (JD–R) model Utrecht Work Engagement Scale (UWES)—used as a composite measure of Work Engagement Work Engagement measured on individual employee level Self-reported and objective measures	Work Engagement assessed on group level only (i.e., team, unit, organizational)
Research type	Qualitative, quantitative, mixed methods and multi-methods	

inclusion/exclusion was obtained through discussion among all the reviewers. Issues typically discussed were the study sample and setting, and the theoretical framework applied. The updated searches identified 462 individual records, which was reduced to 334 after duplicates were removed. We manually added a recently published study that we were aware of (Midje et al., 2022). Due to the publication-indexing time lag, this study did not appear in the search at the time. The screening process related to this stage followed the same guiding principles as the initial searches. The first author (H.H.M.) screened all 335 articles, V.N.N. screened the first 150 articles, E.A.B. screened the next 92 and A.N. screened the last 92. In total sixteen studies, published from 2010 to 2022, were included in this systematic review and proceeded to the next phase of quality appraisal and further analysis (Figure 2, page 6).

2.5 | Quality appraisal

The four reviewers paired up and assessed the quality of the included studies using the Mixed Method Appraisal Tool (MMAT), version 2018 (Hong et al., 2018). Because different sections of the MMAT are designated for the quality appraisal of various categories of empirical studies, the tool permits the assessment of studies across a broad range of methodologies and designs. Each review team assessed eight unique articles (see Appendix S2). In MMAT, each criterion of the chosen study category has three response options—'No', 'Yes' and 'Cannot tell'. In addition to the rating of the criteria, the reviewers recorded comments to justify the quality assessment decisions within and across the teams. A few disagreements were discussed until a consensus was reached. Examples of issues discussed include sample representativeness, assessment of statistical analyses used and adequacy of findings derived from data.

Since many of the included studies lacked clear research questions, the quality assessment had to be based on the study objectives or hypotheses that were presented. Sample representativeness was difficult to assess in some studies because they did not consider nonresponse bias. However, as recommended by the MMAT (Hong et al., 2018), no studies were excluded, nor was an overall rating score calculated.

2.6 | Data abstraction and synthesis

A descriptive and narrative synthesis without meta-analysis of the results of all the included studies have been performed, guided by PRISMA (Page et al., 2021) and SWiM (Campbell et al., 2020). First, various characteristics of the studies were sorted and tabulated. Then, information related to the study findings was extracted and grouped under two main categories: antecedents and outcomes. Whenever multiple analyses were conducted, the highest-level model was used. Finally, each of the factors explored was sorted into sub-categories: job resources, personal resources, job demands and outcomes. Whenever variables differed or there was tension between study findings, they were grouped according to the mentioned four sub-categories and the direction of the associations reported. Thus, in this stage, the synthesis generated both aggregative and interpretative textual descriptions of the reported findings.

Because of the great variety in the antecedents and outcomes measured, the data material was too diverse for a meta-analysis of effect estimates to be undertaken. Hence, there was limited possibility to examine heterogeneity in reported effects or assess the certainty of the synthesized findings, as recommended by the SWiM guideline (Campbell et al., 2020). The SWiM guideline has however served as a point of reference to promote transparency in the descriptive and narrative analysis. The first author (H.H.M.) performed the descriptive and narrative synthesis, which was then validated through scheduled discussions with the entire team. The results of the steps described above were independently assessed by authors K.I.Ø. and S.T., to reduce the risk of bias. Thorough readings of the articles gave a basis for interpreting methodology, statistical analyses and findings. K.I.Ø. and S.T. also assisted in prioritizing results for the synthesis and grouping of examined variables. These measures served to quality-check our final reporting of the various job resources, personal resources, job demands and outcomes. However, inconsistent organization of different types of antecedents and outcomes of WE in our database of studies along with the diversity of variables constitute a limitation on our results here (Campbell et al., 2020).

3 | RESULTS

3.1 | Descriptive synthesis of findings

A summary of the study characteristics is presented in Table 2. Fourteen of the studies utilized a quantitative methodology, with one qualitative, and one multi-method. For practical reasons, the multi-method study will be referred to as a quantitative study, although the qualitative aspects of that study will also be considered.

The research was conducted across ten countries and two continents but was predominantly based in Eurasia (9 studies/56% in Europe and 5 studies/31% in Asia). The study designs were mainly cross-sectional, with two longitudinal (Kubicek et al., 2014; Peters et al., 2016) and two interventional (Benders et al., 2019; Kloos et al., 2019). Participants' response rates ranged between 17% (Simpson, 2010) and 98.8% (Midje et al., 2022; Toyama & Mauno, 2017). Eight studies had a response rate below 55%. Regarding study participants, five of the studies (Janssen et al., 2020; Kameyama et al., 2022; Kloos et al., 2019; Kubicek et al., 2014; Sarti, 2014) also utilized a proportion of 'others', like orderlies, home helpers, educators, occupational therapists and physical therapists, at the most a proportion of 14.7% (Kameyama et al., 2022). The number of participants ranged from 16 (Midje et al., 2021) to 1021 (Janssen et al., 2020) and all samples were mixed gender, although with a vast majority of women. The research of Hara et al. (2021) and Zeng et al. (2022) utilized the same study sample. Participants' age ranged from 22 years (Kameyama et al., 2022) to 63 years (Midje et al., 2021), with the mean age ranging from 33.3 years, *SD* ±7.6 (Abdelhadi & Drach-Zahavy, 2012) to 48.8 years, *SD* ±9.7 (Zeng et al., 2022).

TABLE 2 Study characteristics.

Author, (year), country	Study design	Aim(s)/objective(s)	Sample/participants	Data collection method
Abdelhadi and Drach-Zahavy (2012), Israel	Nested cross-sectional	To test a model that suggests that the ward's service climate facilitates nurses' patient-centred care behaviours through its effect on nurses' WE	158 nurses in 40 retirement home wards	Questionnaire and structured observations
Benders et al. (2019), Belgium	Interventional study - Cross-sectional and multi-method	To determine differences in employees' job demands, job resources, burnout risk, and WE in a nursing home applying a Continuous Improvement (CI) program and nine comparable nursing homes To assess the extent differences may be attributed to the CI program in use	41 nurses and supporting staff in a nursing home applying a CI program and 512 employees in nine comparable nursing homes not applying CI programs	Questionnaire and semi-structured interviews
Hara et al. (2021), Japan	Cross-sectional	To explore the impact that the attractiveness of working in nursing homes and autonomous clinical judgement have on affective occupational commitment, and, to determine whether WE mediates these relationships	552 nurses in nursing homes - Registered nurses and licensed practical nurses	Questionnaire
Janssen et al. (2020), Belgium	Cross-sectional	To study the simultaneous relationships of work pressure with the performance and well-being of nurses and to explore whether mindfulness moderates these relationships	1021 nurses working in 103 care homes - Nurses with a higher education degree, nurses with a high-school degree, and others (animator, occupational therapist, etc.)	Questionnaire
Kameyama et al. (2022), Japan	Cross-sectional	To identify which factors—including well-being, WE and original items (based on a previous study), contribute to foreign care workers' intent to continue working	129 foreign employees working in 36 LTC facilities - Nurses, certified caregivers, care workers, care managers and others	Questionnaire
Kloos et al. (2019), The Netherlands	Interventional study - Two-armed cluster-randomized controlled trial	To test the effectiveness and acceptability of an eight-week online multi-component positive psychology intervention in improving general well-being, job satisfaction, and WE	136 employees in four nursing homes - Registered nurses, licensed practical nurses, nurse assistants, and students	Questionnaire
Kubicek et al. (2014), Austria	*Study 1*: Cross-sectional *Study 2*: Longitudinal	*Study 1* tested whether job control had a non-linear effect on work-related well-being (irritation) *Study 2* tested the potential long-term non-linear effects of job control on well-being (burnout and WE)	Only *study 2* is relevant for inclusion, comprising 591 eldercare workers in nursing homes - Registered nurses, orderlies, and nursing assistants	Questionnaire
Malagon-Aguilera et al. (2019), Spain	Cross-sectional	To examine the sense of coherence (SOC) among registered nurses and its relationship with health and WE	109 registered nurses working in LTC facilities	Questionnaire
Midje et al. (2021), Norway	Exploratory qualitative design	To explore the meaning of work engagement in the context of the development of person-centred processes/practices, as experienced by healthcare worker in municipal LTC facilities	16 healthcare workers in LTC facilities—registered nurses, nursing assistants, unit middle managers	Semi-structured individual interviews
Midje et al. (2022), Norway	Cross-sectional	To explore the influence of job demands and job resources on WE and person-centred processes, and examine whether WE moderates or mediates the effects of demands and resources on person-centred processes	128 healthcare workers in municipal nursing homes and care homes—registered nurses and nursing assistants	Questionnaire
Perreira et al. (2019), Canada	Cross-sectional	To explore associations between work environment, work attitude, and work outcome variables	276 health support workers in LTC facilities	Questionnaire

Antecedents—Job resources, personal resources, and job demands	Outcomes	Main findings
The ward's service climate	Patient-centred care (PCC) behaviours	Nurses who experienced high levels of WE provided more PCC behaviours than those who experienced less Nurses' WE mediates the relationship between the ward's service climate and nurses' PCC behaviours
Autonomy Data provision Social support Organizing tasks Task repetitiveness Predictability Variability Completeness Time pressure Emotional workload	N/A	Employees in the CI nursing home reported significantly higher levels of WE. Autonomy and organizing task were job resources that increased in the CI home. Social support decreased. The job demand predictability increased, and variability and time pressure decreased in the CI home
The attractiveness of working in nursing homes (AWNH) Autonomous clinical judgement (ACJ)	Affective occupational commitment (AOC)	Direct and significant positive effect between AWNH and WE and between ACJ and WE. High levels of WE lead to increased AOC WE fully mediated the relationship between AWNH and AOC. WE partly mediated the relationship between ACJ and AOC
Mindfulness Work pressure	N/A	Work pressure was negatively associated with WE, and mindfulness was positively associated with WE. Depending on the outcome, work pressure can be perceived as a hindrance, or a challenge demand Mindfulness moderated the negative association between work pressure and WE
19 original items extracted from a previous study, i.e.: The sense of performing good care Willingness to learn good care Confidence in my ability Well-being	Intent to continue working	Willingness to learn good care, the sense of performing good care, confidence in my ability, and well-being had a direct or indirect effect on WE Intent to continue working was positively associated with WE
Positive emotions Discovering and using strengths Optimism Self-compassion Resilience Positive relations	N/A	The positive psychology intervention (as a antecedent factor) had no significant effect on WE
Job control	N/A	Curvilinear effects were found between job control and WE. An initial increase in job control was related to higher levels of all three WE outcomes (vigour, dedication, and absorption), but only up to a certain point (i.e., inflection point) after which higher levels of job control led to lower WE levels
Sense of coherence (SOC) Work-related family conflicts	N/A	Overall, SOC was positively correlated with WE, but the association was not confirmed in the linear regression model Nurses without work-related family conflicts showed greater WE
Social support from colleagues and managers Job feedback Mastery Meaningful tasks Opportunities for development Motivated colleagues Collaborative and inclusive ways of working	Person-centred processes/ practices	Social support from colleagues and managers, job feedback, mastery, meaningful tasks, opportunities for development, motivated colleagues, collaborative and inclusive ways of working were positively associated with WE WE contributed to high-quality person-centred processes/practices
Work being meaningful Social community Investment in development Job autonomy Illegitimate work task Role conflict Role overload	Person-centred processes—Working with patients' Beliefs and values; Shared decision making; Engaging authentically; Sympathetic presence; Providing holistic care	WE was positively correlated with work being meaningful, social community, and investment in development. WE was negatively correlated with role conflict and role overload. WE was neither a significant moderator nor a mediator between job resources and person-centred processes
Quality of work life Organizational support—supervisor Perceptions of workplace safety Job satisfaction	Intention to stay Organizational citizenship behaviours directed towards the organization Individual work performance	Quality of work life, job satisfaction and intention to stay was positively associated with WE

TABLE 2 (Continued)

Author, (year), country	Study design	Aim(s)/objective(s)	Sample/participants	Data collection method
Peters et al. (2016), The Netherlands	Longitudinal	To examine whether the interactions of personal and job resources with work schedule demands predicts WE and emotional exhaustion among nurses working in residential care for the elderly	247 nurses Working shifts or irregular Working hours in residential care for the elderly - Registered nurses, enrolled nurses, licensed vocational or practical Nurses and nurse care helpers	Questionnaire
Sarti (2014), Italy	Cross-sectional	To analyse the role of job resources in determining employees' engagement at work	167 caregivers in nine LTC facilities - Registered nurses, nurse managers, home helpers, nursing aides, and certified nursing assistants	Questionnaire
Simpson (2010), USA	Cross-sectional	To examine the factor structure, internal consistency reliability, and concurrent-related validity of the Core Nurse Resource Scale (CNRS)	149 nursing staff in LTC facilities - Registered nurses, licensed practical nurses and certified nursing assistants	Questionnaire
Toyama and Mauno (2017), Japan	Cross-sectional	(1) To investigate the direct and indirect relationships among trait emotional intelligence, social support, WE, and creativity (2) To examine weather trait emotional intelligence moderates the triadic relationship among social support, WE, and creativity	489 eldercare nurses in nursing homes	Questionnaire
Zeng et al. (2022), Japan	Cross-sectional	To study the effect of nurses' intrinsic and extrinsic work motivation on WE among nurses in LTC facilities	561 nurses and licensed practical nurses in LTC facilities	Questionnaire

Out of the fifteen quantitative studies, WE was most commonly measured using UWES-9 (Schaufeli et al., 2002) (10 studies/67%), followed by UWES-17 (3 studies/20%) and UWES-3 (1 study/7%). In the article by Kameyama et al. (2022), there was not enough information provided to decide whether UWES-9 or UWES-17 had been used. In thirteen of the quantitative studies, UWES was used exclusively as a composite measure of WE; in one study (Kubicek et al., 2014) only as individual construct scores on vigour, dedication and absorption, and in another (Malagon-Aguilera et al., 2019) on both measurement levels. Further, thirteen of the quantitative studies (87%) employed bivariate correlation analyses, twelve (80%) utilized different General Linear Models (GLMs), such as regression models and Repeated Measures ANOVA, and six (40%) used Structural Equation Modelling (SEM). The statistical analyses involved a variety of control variables, the most common being age, gender, job positionz, and working experience.

3.2 | Narrative synthesis without meta-analysis of findings

All the examined antecedents and outcomes of WE among LTC nursing staff are presented in Table 3. Nine of the sixteen included studies (56%) exclusively examined antecedents and seven (44%) examined both antecedents and outcomes. Two interventional studies that were included, mainly focused on the intervention itself, that is, a positive psychology intervention (Kloos et al., 2019) and a Continuous Improvement (CI) program (Benders et al., 2019), and not essentially on the assessed job resources, personal resources and job demands. We note, however, that Benders et al. (2019) report the associations between WE and the different job resource and job demands included.

In total, forty-two unique job-related factors were examined (the interventional studies were not included). Thirty-six factors were assessed individually as antecedents and six as outcomes of WE. Additionally, in the research by Simpson (2010), various nursing work environment resources were analysed in groups according to the following subscales—'physical', 'psychological' and 'social resources'. Due to the somewhat different foci that follow an interventional study design and job resources being measured on group-level rather than individually, the results of those studies mainly will be reported separately from the others.

3.2.1 | Antecedents of WE

Of the thirty-six unique antecedents, sixteen were categorized as job resources, thirteen as personal resources and seven as job demands.

Antecedents—Job resources, personal resources, and job demands	Outcomes	Main findings
Work schedule control The work schedule fit with the nurses' private life Active coping Healthy lifestyle Type of work schedule Weekly working hours	N/A	The work schedule fit with nurses' private life (satisfaction with irregular working hours) Increased WE after 1 year when work schedule demands were high
Decision authority Learning opportunity Supervisor's support Co-worker's support Performance feedback Financial rewards	N/A	Learning opportunity, supervisor's support, and co-worker's support were significantly associated with WE
Pysical resources: Equipment/materials Recovery at work *Psychological resources*: Leaders influence on feelings of—Contribution, Recognition, and Growth *Social resources*: Co-worker relations Support in work-role tasks	N/A	The composite CNRS score, as well as the sub-scales of physical, psychological, and social resources were significantly and positively correlated with WE
Social support Trait emotional intelligence (EI)	Employee creativity	EI and social support had positive direct effects on WE EI had positive direct effects on creativity, as well as significant indirect effect on creativity via WE Another significant indirect pathway from EI through social support and WE to creativity was also observed Moderation analysis showed a significant interaction effect between EI and social support on WE
Intrinsic work motivation Extrinsic work motivation Job satisfaction	N/A	Intrinsic motivation and job satisfaction had a significant positive effect on WE

Job resources

Job resources were considered physical, psychosocial and organizational conditions of the working environment and were assessed in eleven studies. 'Social support'—from managers and/or colleagues, was most frequently examined and reported to be a statistically significant, direct positive predictor of WE among LTC nursing staff in three studies (Midje et al., 2021; Sarti, 2014; Toyama & Mauno, 2017) out of four (Perreira et al., 2019). However, it should be noted that in the study by Perreira et al. (2019) 'organizational support from supervisors' was significantly and positively correlated with engagement. However, this association was not confirmed in the path analyses. In the qualitative study by Midje et al. (2021), the two relational factors—'motivated colleagues' and 'collaborative and inclusive ways of working' (being part of a collaborative and inclusive team)—were found to positively influence WE. Other job resources identified as important for WE in that study were 'meaningful tasks' and 'mastery at work'. The quantitative study by Midje et al. (2022) found a significant and positive association between WE and the factors—'work being meaningful' and 'social community'.

The second most frequent type of job resources examined were various factors related to nursing staff's perceived possibility to influence their work and meet professional goals, that is—'job control' (Kubicek et al., 2014), 'job autonomy' (Midje et al., 2022), 'work schedule control' (Peters et al., 2016) and 'decision authority' (Sarti, 2014). Out of these, only job control and job autonomy were reported to be significantly and positively related to WE. However, the longitudinal effects of job control on WE identified in the study by Kubicek et al. (2014) were non-linear, meaning that in the long run, only the eldercare workers with middle levels of job control reported a higher tendency to experience dedication, absorption and vigour in their work. Further, in the longitudinal study by Peters et al. (2016), 'work schedule control' was significantly and positively correlated with WE at both times 1 and 2. Nevertheless, based on the results of their analyses of the long-run effects, work schedule control was concluded not to be a significant driver of WE. Regarding the job resource factor 'decision authority' in the study by Sarti (2014), the results of the regression analysis indicated this factor affected WE slightly negatively, that is, only bordering on a significant level.

'Learning opportunities' (Sarti, 2014), 'development opportunities' (Midje et al., 2021) and 'investment in development' (Midje et al., 2022) were reported to play an important role in enhancing WE. 'Job feedback' (Midje et al., 2021) and 'performance feedback' (Sarti, 2014) were also considered as antecedents of WE, but only Midje et al. (2021) concluded this job resource as an important factor for WE. In the study by Hara et al. (2021), the factor—'the perceived attractiveness of working in nursing homes', was significantly and positively related to WE. The organizational job resources—'financial rewards' (Sarti, 2014) and 'perceptions of workplace safety' (Perreira et al., 2019), did not play any

relevant role in predicting WE, but 'the quality of working life' (Perreira et al., 2019) did. 'The ward's service climate' also was found to affect WE positively (Abdelhadi & Drach-Zahavy, 2012). In the longitudinal study of Peters et al. (2016), only—'the work schedule fit' with the nurses' private life (satisfaction with irregular working hours), was reported as a statistically significant predictor of WE.

In the study by Simpson (2010), all the three subscales of job resources—'physical', 'psychological' and 'social' resources—correlated significantly and positively with WE. Factors included in the group of physical resources were—'access to materials and equipment' and 'recovery/work-rest schedules'. Psychological resources were—leaders' influence on 'contribution', 'recognition' and 'growth'. Social resources were—'co-worker relations' and 'support in work-role tasks'. In the interventional study by Benders et al. (2019), the CI program covered the four job resources—'autonomy', 'data provision', 'social support' and 'organizing tasks'. The CI program positively impacted nursing staff's WE by strengthening the factors—autonomy and organizing tasks. Social support turned out to be significantly lower in the CI nursing home compared to the nursing homes not receiving CI.

Personal resources

Personal resources were considered internal resources that can be attributed to an individual and were examined in nine studies. Almost none of the thirteen unique personal resources were assessed in more than one study. The only exception was—'job satisfaction', which was reported to be an important influencing factor on WE by both Zeng et al. (2022) and Perreira et al. (2019).

In addition to job satisfaction, the following personal resources were identified as significant direct or indirect predictors of the nursing staff's WE—'sense of coherence' (SOC) (Malagon-Aguilera et al., 2019), 'mindfulness' (Janssen et al., 2020), 'intrinsic work motivation' (Zeng et al., 2022), 'the sense of performing good care', 'willingness to learn good care', 'confidence in my ability' and 'well-being' (Kameyama et al., 2022), 'autonomous clinical judgement' (Hara et al., 2021), and 'trait emotional intelligence' (EI) (Toyama & Mauno, 2017). It should be noted that the significant bivariate correlation between SOC and WE in the study of Malagon-Aguilera et al. (2019) was not confirmed by the linear regression model. In the study by Toyama and Mauno (2017), EI also was found to moderate the relationship between WE and work-related support from managers, colleagues, and family/friends. Further, mindfulness was reported to strengthen the negative effect of the job demand work pressure on WE (Janssen et al., 2020). Three of the assessed personal resources showed no significant association with WE, that is—'active coping' and 'healthy lifestyle' (Peters et al., 2016) and 'extrinsic work motivation' (Zeng et al., 2022).

In the study by Kloos et al. (2019), the positive psychology intervention was concluded not effective in improving WE among the nursing staff. The intervention covered six personal resources reflecting general well-being—'positive emotions', 'discovering and using strengths', 'optimism', 'self-compassion', 'resilience' and 'positive relations'.

Job demands

Seven unique job demands were examined in four studies. Additionally, six factors were categorized as job demands in the interventional study by Benders et al. (2019). Only the demand—'work pressure', was assessed in more than one study.

Job demands showing a significant and negative association with WE were—'work-related family conflicts' (Malagon-Aguilera et al., 2019), 'work pressure' (Janssen et al., 2020), and 'role conflict' and 'role overload' (Midje et al., 2022). It should be noted that work pressure was also identified as a positive challenge demand. The job demands—'the type of work schedule' (demanding vs. less demanding) and 'weekly working hours' (Peters et al., 2016) and 'illegitimate work tasks' (Midje et al., 2022), were reported not to influence the WE of LTC nursing staff.

The interventional study by Benders et al. (2019) examined the following job demands—'task repetitiveness', 'predictability', 'variability', 'completeness', 'time pressure' and 'emotional workload'. Significant changes were identified in the CI nursing home compared with the control group, in that the nursing staff perceived more predictability and less variability and time pressure.

3.2.2 | Outcomes of WE

Seven (44%) of the included studies examined six unique outcomes of WE. Two studies—Abdelhadi and Drach-Zahavy (2012) and Midje et al. (2021)—identified 'person-centred processes' as an outcome of LTC nursing staff's WE. A third study—Midje et al. (2022)—did not. In the study by Abdelhadi and Drach-Zahavy (2012), the effect of 'the ward's service climate' on 'patient-centred care behaviours' was mediated by WE. Toyama and Mauno (2017) reported significantly higher 'employee creativity' with greater WE, and further, that WE mediated the relationship between 'trait EI' and 'creativity'. Perreira et al. (2019) concluded that 'the intention to stay' was higher when WE was high. The other two outcomes examined in that study—'organizational citizenship behaviours directed towards the organization' (OCB–Os) and 'individual work performance'—showed no significant association with WE. Kameyama et al. (2022) also found that WE was significantly and positively associated with 'the intent to continue working'. Hara et al. (2021) reported significantly higher 'affective occupational commitment' with greater WE. Additionally, in that study, WE fully mediated the effect of 'the perceived attractiveness of working in nursing homes' on 'affective occupational commitment' and partly the effect of 'autonomous clinical judgement' on 'affective occupational commitment'.

4 | DISCUSSION

4.1 | Summary of results

To the best of our knowledge, this is the first systematic review of antecedents and outcomes of WE among nursing staff exclusively employed in LTC facilities. Our study shows that in this setting, a wide range of job resources and personal resources, but also some job demands, are potential antecedents of WE.

TABLE 3 Examined antecedents and outcomes of work engagement.

Antecedents of work engagement
Job resources
Job autonomy—Work schedule control—The work schedule fit with the nurses' private life—Financial rewards—Learning and development opportunity—Decision authority
Social support—Job feedback—Mastery—Meaningful tasks—Motivated colleagues
Social community—Collaborative and inclusive ways of working—The attractiveness of working in nursing home—Quality of work life—Perceptions of workplace safety—The ward's service climate—Physical resources—Psychological resources—Social resources—a Continuous Improvement program
Personal resources
Sense of coherence—Mindfulness—Active coping—Healthy lifestyle—Intrinsic work motivation—Extrinsic work motivation—Job satisfaction—Willingness to learn good care—Confidence in my ability—Well-being—The sense of performing good care—Autonomous clinical judgement—Trait emotional intelligence—a Positive Psychology Intervention
Job demands
Work-related family conflicts—Work pressure—Type of work schedule—Weekly working hours—Illegitimate work tasks—Role conflict—Role overload
Outcomes of work engagement
Person-centred processes—Intent to continue working—Affective occupational commitment—Organizational citizenship behaviours directed towards the organization—Individual work performance—Employee creativity

Support from managers and colleagues, meaningful work tasks and performance feedback, job satisfaction and confidence in one's ability and role conflict and role overload are notable examples. Moreover, antecedents are more commonly examined than outcomes, with job resources by a slight margin examined the most. Despite a limited amount of research, sixteen studies were included, sharing a common concept of being based on the JD-R model (Bakker & Demerouti, 2008) and measuring WE with UWES (Schaufeli et al., 2002). Out of forty-two unique factors, only two antecedents—'social support' and 'learning and development opportunities'—and one outcome—'person-centred processes'—were assessed in three or more of the studies.

Due to the sparse evidence, chosen study designs and limited quality of available research, neither a meta-analysis of effect estimates could be undertaken nor could any firm conclusions be drawn on the antecedents and outcomes of LTC nursing staff's WE. Still, this systematic review provides sufficient evidence to affirm that WE of LTC nursing staff is associated with various factors related to the working environment (job resources and job demands), the worker himself (personal resources) and positive work-related outcomes. Most of the existing systematic reviews examining WE within healthcare, based on the JD–R model, have considered studies mainly based on the hospital nurses (García-Sierra et al., 2016; Keyko et al., 2016).

4.2 | Antecedents of WE

4.2.1 | Job resources

In line with the propositions of the JD–R model (Bakker & Demerouti, 2008), this systematic review confirms that also among LTC nursing staff, 'social support' is a substantial driver of WE (Midje et al., 2021; Sarti, 2014; Toyama & Mauno, 2017). Moreover, interpersonal relation resources such as—'motivated colleagues' and 'collaborative and inclusive ways of working' (Midje et al., 2021), 'co-worker relations' (Simpson, 2010), 'social community' (Midje et al., 2022), and 'the perceived attractiveness of working in nursing homes' (Hara et al., 2021), are reported to be antecedents of WE. Professional resources, such as—'the ward's service climate' (Abdelhadi & Drach-Zahavy, 2012), 'access to materials and equipment' (Simpson, 2010) and 'organization of tasks' (Benders et al., 2019), also seem relevant for boosting WE. Finally, the findings of this study support 'job autonomy' as an antecedent of WE among LTC nursing staff (Benders et al., 2019; Kubicek et al., 2014; Midje et al., 2022).

In a recent integrative review of fourteen previous reviews based on the JD–R model, Broetje et al. (2020) identified core job resources and job demands of nursing staff across various thematic categories related to occupational well-being, that is—'motivation', 'health' (including WE), 'performance' and 'retention'. The included reviews mainly involved samples of hospital nurses, and only to a limited extent samples of nursing staff in LTC and community care. The following six core job resources were identified by Broetje et al. (2020)—'social support' (from supervisor, colleagues and organization), 'fair and authentic management', 'transformational leadership', 'interpersonal relations', 'autonomy' and 'professional resources'. These job resources resemble the findings of this systematic review, although most are not consistent enough reported to be firmly concluded. Our findings demonstrate that the research on the antecedents and outcomes of WE among LTC nursing staff is underdeveloped. This concerns the total amount of relevant studies, but also the types of antecedents investigated, and their considerable conceptual diversity.

Included in the integrative review by Broetje et al. (2020) is a study by Keyko et al. (2016). To our knowledge, Keyko and colleagues have the most recent systematic review, investigating the antecedents and outcomes of WE among hospital nurses, that is, along with a systematic review by García-Sierra et al. (2016). Keyko et al. (2016) found that antecedents of WE in professional nursing practice are more commonly examined than outcomes, supporting the findings in our systematic review. In their study, 77 antecedents and 17 outcomes of WE were assessed and presented in a new, comprehensive model called the Nursing Job Demands-Resources (NJD–R) model. In the NJD–R model, antecedents are organized into five main thematic categories—'organizational climate', 'job resources', 'professional resources', 'personal resources' and 'job resources'. In the study by Keyko et al. (2016), and corresponding to the findings of our systematic review, job resources, specifically the sub-theme—'interpersonal- and social relations', were the most examined category of antecedents. The second most examined category was

professional resources. Examples of such found to influence nurses' WE are—'professional practice environment', 'job autonomy' and 'challenge and professional growth'. This somewhat confirms the findings of our study regarding the function of 'learning and development opportunities' (Midje et al., 2021, 2022; Sarti, 2014) and 'job autonomy'. Examples of antecedents included in the category of organizational climate in the study by Keyko and colleagues are—'leadership styles' and 'structural empowerment'. None of those factors were examined in any of the studies included in our systematic review. The NJD–R model shows that organizational climate factors have the potential to impact WE both directly and indirectly by a mediated effect through factors related to other antecedent categories—thus indicating a hierarchical structure of different categories of antecedents. For example, leadership and structural empowerment may function as antecedents of WE through various resources at an operational level.

A meta-analytic review of longitudinal evidence regarding WE by Lesener et al. (2020) also found a hierarchical structure of antecedents. That review was based on 55 longitudinal studies investigating antecedents of WE in 57 samples representing different occupational settings and groups. 'Social support' was reported to be the most studied antecedent and recognized as a stable group-level driver of WE over time. As mentioned earlier, this is in line with the findings from our systematic review of LTC nursing staff. The study by Lesener et al. (2020) revealed that job resources on 'organizational', 'group' and 'leadership' levels contributed significantly to WE over time, the first of these the most. Moreover, Lesener and colleagues found that organizational-level resources, such as—'job control', 'autonomy', 'development opportunities', 'role clarity', 'material resources' and 'participation in decision-making'—were fundamental for job resources at the group and leader levels. In this systematic review, organizational level antecedents identified were 'job autonomy', 'access to materials and equipment', 'learning and development opportunities' and 'middle-level job control'. Moreover, a study by Simpson (2010) found evidence that the leader's influence on workers' feelings of—'contribution', 'recognition' and 'growth' was associated with WE, that is when analysed as a composite measure of psychological resources. Thus, to a certain extent, our findings resemble those of Lesener et al. (2020), although we neither examined the hierarchical structure nor longitudinal effects of antecedents.

The importance of group-level relational and social resources was confirmed in a systematic review and meta-analysis by Costello et al. (2019), which focused on stress and burnout among nursing staff in dementia care. Their findings showed that 'supervisor and colleague support' and 'a perceived good unit caring climate' buffered burnout, stress and job strain. Further, 'a poor-working environment', such as insufficient space, was associated with burnout and stress. In this systematic review, examples of relational and social resources associated with WE were—'social community', 'motivated colleagues' and 'collaborative and inclusive ways of working'. Further, the working environment factor—'quality of work life' (Perreira et al., 2019), was significantly and positively associated with WE. Thus, to enhance employee engagement and reduce stress and burnout, targeted organizational actions aiming to develop the LTC facilities' working environment at various levels seem worthwhile.

Regarding studies focused on WE interventions included in this systematic review, only the CI program by Benders et al. (2019), targeted at resources at the organizational level, was reported to enhance WE. The psychology intervention by Kloos et al. (2019), covering six personal resources, did not. Notably, in the study by Benders and colleagues 'social support' was lower in the group receiving the CI program compared with those not receiving it. Conversely, the findings in three of the cross-sectional studies included in our review show that high-social support is associated with high WE. Lesener et al. (2020) call for more WE interventions targeting resources on all levels, however, most preferably on the organizational level. Knight et al. (2019) concur, hoping that their recent systematic review focusing on what makes WE interventions effective stimulate researchers in building further knowledge around the topic.

4.2.2 | Personal resources

The NJD–R model (Keyko et al., 2016) shows that a wide range of individual-level antecedents of WE exist among hospital nurses, confirming the findings of our study among LTC nursing staff. In the NJR–D model, personal resources are structured into the subthemes—'psychological', 'relational' and 'skill'. Relational resources were not examined in any of the included studies of this systematic review. However, the skill resources—'willingness to learn good care' and 'the sense of performing good care' (Kameyama et al., 2022) and 'autonomous clinical judgement' (Hara et al., 2021)—were all found to positively impact WE. In the study by Keyko et al. (2016), none of the three skill resources—'clinical competence', 'organizational acumen' and 'personal growth'—were associated with WE. However, the relational resources—'trust in manager', 'social intelligence' and 'personality'—and the psychological resources—'psychological capital' and 'empowerment' and 'self-transcendence'—were found to be associated with WE. In our systematic review, the psychological resources—'extrinsic work motivation' (Zeng et al., 2022) and 'active coping' (Peters et al., 2016)—showed no association with WE. However, psychological resources that did were—'well-being' (Kameyama et al., 2022), 'job satisfaction' (Perreira et al., 2019; Zeng et al., 2022), 'sense of coherence' (Malagon-Aguilera et al., 2019), 'mindfulness' (Janssen et al., 2020), 'intrinsic work motivation' (Zeng et al., 2022), 'confidence in my ability' (Kameyama et al., 2022) and 'trait EI' (Toyama & Mauno, 2017). According to the JD–R model, well-being and job satisfaction are more commonly regarded as outcomes than antecedents of WE (Bakker et al., 2014). This is confirmed by studies in both professional nursing practice and the general population (Broetje et al., 2020; Keyko et al., 2016; Mazzetti et al., 2021). Moreover, in a recent systematic review among LTC nurses by Aloisio et al. (2021), job satisfaction was explored as a distinct construct with unique antecedent and outcome factors.

None of the personal resources reported by Keyko et al. (2016) were examined in any of the studies in this systematic review. However, the examined factors in our study could be regarded as supplements to the different types of personal resources described by Keyko and colleagues. Thus, one can assume that a wide range of personal resources has the potential to influence LTC nursing staff's WE. Nevertheless, the evidence base is sparse, and the results are mixed. Moreover, the examined personal resources only marginally resemble those specified by the JD-R model, such as—'hope', 'optimism', 'self-efficacy' and 'self-esteem' (Bakker et al., 2014; Bakker & Demerouti, 2008; Galanakis & Tsitouri, 2022). In a recent meta-analysis, Mazzetti et al. (2021) investigated the strength of the association between WE and different antecedents in samples from various occupations and work settings. Sorted into four consistent categories of antecedents, the categories—'personal resources' and 'development resources' showed a statistically higher correlation with WE than 'job resources' and 'social resources'. Among personal resources were four factors of psychological capital, that is—'resilience', 'self-efficacy', 'optimism' and 'proactivity'. Hence, our systematic review points to the need for more research to strengthen and complement the knowledge base about different types of personal resources and their relationship with WE among LTC nursing staff. The study by Mazzetti et al. (2021) is relevant as a guide about where to begin.

4.2.3 | Job demands

In this systematic review, the job demands—'work-related family conflicts' (Malagon-Aguilera et al., 2019), 'work and time pressure' (Benders et al., 2019; Janssen et al., 2020) and 'role overload' and 'role conflict' (Midje et al., 2022)—showed a negative association with WE. 'The type of work schedule' (demanding vs. not demanding) and 'weekly working hours' (Peters et al., 2016) and 'illegitimate work tasks' (Midje et al., 2022), did not. According to Broetje et al. (2020), job demands like—'work–life interference', 'work overload' and 'lack of formal rewards'—are associated with WE of nursing staff. The two first-mentioned factors are consistent with the findings of this systematic review. The factor—'lack of formal rewards' encompassed the theme of pay. In our review, a study by Sarti (2014) concluded no significant association between 'financial rewards' and WE. Thus, our findings indicate that the association between financial rewards and WE seem ambiguous.

In one of the studies we included, a CI program, was reported to positively impact WE through greater 'predictability' and decreased 'variability' and 'time pressure' (Benders et al., 2019). In that study, predictability and variability were defined as job demands. However, one could argue those factors better align with the definition of job resources than job demands (Bakker & Demerouti, 2007). In the study by Keyko et al. (2016), job demands were grouped into four sub-themes—'work pressure', 'physical and mental demands', 'emotional demands' and 'adverse environment'. Most assessed themes were physical and mental demands, followed by work pressure. Examples of examined physical and mental demands are 'hours worked per week' and 'day shift vs. night shift', and examples of work pressure demands are 'workload', 'indirect patient care' and 'adjustment to nursing work'. However, the results regarding the factors in both sub-themes were equivocal (Keyko et al., 2016). According to Broetje et al. (2020), synthesizing the findings of existing research is difficult because the organization of factors into resources and demands varies. Moreover, they argue that more research is needed on the job demands and resources exclusively in the LTC setting.

4.3 | Outcomes of WE

In this systematic review, six unique outcomes of WE were identified and examined. Only one outcome factor—'person-centred processes'—was assessed in more than two studies. In the NJD-R model (Keyko et al., 2016), outcomes of WE are divided into the categories—'personal', 'performance and care' and 'professional'. In our study, four factors could be categorized as personal outcomes and two as performance and care outcomes. Thus, no professional outcomes were examined. Personal outcomes positively associated with WE are—'intent to continue working' (Kameyama et al., 2022; Perreira et al., 2019), 'affective occupational commitment' (Hara et al., 2021) and 'employee creativity' (Toyama & Mauno, 2017). The personal outcome—'organizational citizenship behaviours directed towards the organization' (Perreira et al., 2019)—was not associated with WE. The one performance and care outcome assessed—'person-centred processes'—was positively associated with WE in two (Abdelhadi & Drach-Zahavy, 2012; Midje et al., 2021) out of three (2022) studies. The other—'individual work performance' (Perreira et al., 2019)—did not correlate significantly with WE.

In the systematic review by Keyko et al. (2016), seven of the in-total nine assessed personal outcome factors were associated with nurses' WE. Examples are—'job satisfaction', 'career satisfaction' and 'decreased job turnover intent'. Only three of the seven performance and care outcomes were positively associated with WE. Those factors were—'work effectiveness', 'voice behaviour' and 'perceived care quality'. Only one professional outcome was assessed—'intent to leave nursing'. This factor was reported to be lower when WE was high in two of the included studies. Mazzetti et al. (2021) found that among workers in various settings and occupational groups, positive outcomes of WE are present both at the organizational and individual levels. In their meta-analysis, the outcomes of WE were divided into—'attitudinal' factors (i.e., job commitment and job satisfaction) and 'behavioural and intentional' factors (i.e., job performance, turnover intention and health). In that study, attitudinal factors showed a stronger association with WE than behavioural and intentional factors. Bakker et al. (2014) suggest that WE are most strongly related to 'motivational' outcome factors. Nevertheless, they recognize that several unanswered questions remain. Thus, based on existing research, the operationalization of WE outcomes seems to be inconsistent, and hence, more studies are needed. According to Keyko

et al. (2016), researchers should further test the NJD–R model, more often assess patient-related WE outcomes, and use objective outcome measurements.

5 | LIMITATIONS

This systematic review provides an updated state-of-the-art overview of the antecedents and outcomes of WE exclusively among LTC nursing staff. Thus, it serves as a basis for the design of future research. Nonetheless, when interpreting the findings, some limitations should be considered.

As hypothesized by the JD–R model, the findings point to a broad scope of organizational, working environment, and personal factors relevant to LCT nursing staff's WE. However, because of the variability in the antecedents and outcomes examined, drawing firm conclusions and conducting a meta-analysis statistically summarizing the findings was not feasible. Hence, more empirical studies exclusively among LTC nursing staff are needed. Furthermore, because existing systematic reviews on similar questions predominantly are from hospitals, interpreting the findings was somewhat challenging. Although characteristic working conditions are shared between hospital and LTC settings, differences do exist. Examples include—physical care demands, organization of work, multi-professional teamwork and support, relationship building and care continuity. These are differences that may affect the generalizability of our results.

The study designs of the included studies were mainly cross-sectional with observational data, only two studies were longitudinal and two interventional. To determine causal relationships on whether the factors assessed are antecedents or outcomes of WE, were therefore not possible. This calls for more longitudinal design studies. Because all included studies used self-report measures, the objectivity of findings may be regarded as low, and the correlations investigated may be overestimated because of common method variance. Future research should strive towards also using objective measures. The MMAT assessment revealed differences in the quality of the included studies. The response rate was low in half of the studies. Combined with insufficient information on dropouts, the representativeness was hard to assess. Also, there seemed to be weaknesses in the statistical analyses performed. Nevertheless, as encouraged by the MMAT, none of the studies were excluded based on poor-methodological quality.

6 | CONCLUSION

This systematic review shows that the empirical evidence on the antecedents and outcomes of WE based on the JD–R model and exclusively among LTC nursing staff is limited. However, supporting the basic assumptions of the JD–R model, the study findings indicate the presence of multiple antecedents and positive outcomes on organizational, group and individual levels. Moreover, the findings support the motivational process put forward by the JD–R model, in that job and personal resources are the main drivers of WE and that WE leads to positive outcomes. Nevertheless, the evidence base is scattered and equivocal, and the examined factors only, to a certain extent, cover those specified by the JD–R model. Thus, our findings point to the essentiality of further research, especially related to the NJD–R model developed by Keyko et al. (2016).

Considering the challenges facing healthcare organizations worldwide, a sustainable healthcare system depends heavily on sufficient nursing staff. To meet the growing number of older people requiring LTC, there must be a considerable increase in the services and workforce. Research has shown that enhancing WE is positive with regard to both individual and organizational outcomes. Hence, healthcare organizations should facilitate the development of working environments that encourage WE and increase effective organizational functioning. In presenting the current state of knowledge in this area, this systematic review offers a foundation for future studies on WE among LTC nursing staff, in support of adequate models and better-evidenced conclusions.

AUTHOR CONTRIBUTIONS

All the authors have agreed on the final version and meet at least one of the following criteria (recommended by the ICMJE*): (1) substantial contributions to conception and design, acquisition of data or analysis and interpretation of data; (2) drafting the article or revising it critically for important intellectual content. Hilde Hovda Midje: Conceptualization, Data curation, Formal Analysis, Funding acquisition, Investigation, Methodology, Project administration, Validation, Visualization, Writing—original draft, Writing—review & editing; Vibeke Narverud Nyborg: Investigation, Methodology, Validation, Visualization, Writing—review & editing; Anita Nordsteien: Investigation, Methodology, Validation, Visualization, Writing—review & editing; Kjell Ivar Øvergård: Conceptualization, Methodology, Supervision, Validation, Writing—review & editing; Espen Andreas Brembo: Investigation, Methodology, Validation, Visualization, Writing—review & editing; Steffen Torp: Conceptualization, Funding acquisition, Supervision, Validation, Writing—review & editing. All the authors read and approved the final article. The authors are personally accountable for their own contributions and ensure that questions related to the accuracy or integrity of any part of the work have been appropriately investigated and resolved.

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CONFLICT OF INTEREST STATEMENT

No conflict of interest has been declared by the author(s).

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The peer review history for this article is available at https://www.webofscience.com/api/gateway/wos/peer-review/10.1111/jan.15804.

DATA AVAILABILITY STATEMENT

When this systematic review is published, the data that support the findings of the study are openly available in the University of South-Eastern Norway Research Data Archive (USN RDA) at https://doi.org/10.23642/usn.20525676.

ORCID

Hilde Hovda Midje https://orcid.org/0000-0002-6590-9720
Espen Andreas Brembo https://orcid.org/0000-0002-6738-0445

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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Attachments

FORESPØRSEL OM DELTAKELSE I FORSKNINGSPROSJEKT

ET ARBEIDSMILJØTILTAK FOR ØKT JOBBENGASJEMENT HOS ANSATTE I KOMMUNALE SYKEHJEM OG OMSORGSBOLIGER

Har du tenkt på… Hvilke forhold ved arbeidet ditt bidrar til at du trives og presterer godt?

I Bærum kommune skal det gjøres et forskningsprosjekt med fokus på arbeidsmiljøet til ansatte i kommunale sykehjem og omsorgsboliger. Hensikten er å evaluere og videreutvikle et spesifikt arbeidsmiljøtiltak (intervensjon) med mål om å stimulere til økt jobbengasjement, helse og jobbprestasjoner. Vi håper du vil bidra med dine erfaringer.

HVEM ER ANSVARLIG FOR FORSKNINGSPROSJEKTET?

Forskningsprosjektet er et samarbeid mellom Bedriftshelsetjenesten (BHT) i Bærum kommune og Universitetet i Sørøst-Norge og gjennomføres med støtte fra Norges forskningsråd ved ordningen Offentlig sektor-PhD (prosjektnr. 286454). Prosjektleder og doktorgradskandidat er Hilde Hovda Midje (BHT) og hovedveileder ved Universitetet i Sørøst-Norge er professor Steffen Torp. Personvernombudet i Bærum kommune er orientert om prosjektet og bifaller dette.

FORMÅLET OG OMFANGET AV PROSJEKTET

Intervensjonen pågår over ca. ett år og består av fire (4) stor-samlinger/workshops som ledes av doktorgradskandidaten og kollega fra BHT, og hvor det jobbes kollektivt og individuelt med arbeidsmiljørelaterte tema. Formålet er å forske på denne intervensjonen med tanke på effekter og innhold. Dette innebærer rekruttering av fire (4) grupper ansatte tilhørende ulike sykehjem og to (2) grupper tilhørende omsorgsboliger i Bærum kommune. Det er kun tre (3) av gruppene som får intervensjonen, mens de andre utgjør grunnlaget for sammenligning. De som inngår i sammenligningsgruppene vil også få tilbud om arbeidsmiljøintervensjonen, men på et senere tidspunkt og uavhengig av forskningen.

Målet med dette informasjonsskrivet er å rekruttere til prosjektet i sin helhet. Det betyr at du først på et senere tidspunkt vil få beskjed om du inngår i intervensjons- eller sammenligningsgruppen.

Forskningsprosjektet består av tre (3) delstudier:

Delstudie 1: En intervensjonsstudie hvor arbeidsmiljøtiltaket gjennomføres og undersøkes for individuelle og kollektive effekter på jobbengasjement, mentale helse, kort- og langtidssykefravær og personorientert helseomsorg. Intervensjonen består av ulike gruppebaserte aktiviteter over en periode på ett (1) år. Det vil si at ansatte i en personalgruppe vil sammen, og individuelt, jobbe med utvikling av forskjellige arbeidsmiljøforhold i tilrettelagte samlinger. Eksempelvis jobbes det da med avklaringer av oppgave- og ansvarsfordeling, kommunikasjon og samarbeid, ledelsesform og støttende arbeidsfellesskap. Forskningsdata til denne delstudien samles inn via spørreskjema rett før, midtveis og rett etter gjennomført intervensjon.

Delstudie 2: En prosessevaluering av intervensjonen fokusert på hvordan de ansatte opplever at ulike tematiske og metodiske valg fremmer eller hemmer ønskede effekter. Målet er å bruke denne kunnskapen til å utarbeide tiltak som vil forbedre intervensjonen. Forskningsdata samles inn via 5-6 individuelle dybdeintervju som tas opp på lydbånd (varighet 60-90 minutter) og ved åpen observasjon av samlingene. Intervju og observasjon utføres av ekstern forsker, det vil si ansatt ved forskningsinstituttet NORCE (tidligere UniResearch).

Delstudie 3: En undersøkelse av sammenhengen mellom jobbengasjement, arbeidsmiljø og de ansattes opplevelse av muligheten til å gi personorientert helseomsorg til beboerne. Forskningsdata til denne delstudien gjøres gjennom dybdeintervjuene beskrevet over.

HVORFOR FÅR DU SPØRSMÅL OM Å DELTA?

Som ansatt i et kommunalt sykehjem eller omsorgsbolig i Bærum er du i målgruppen for dette forskningsprosjektet og inviteres derfor til å delta. Kommunalsjefen og seksjonslederne for Pleie- og omsorgsområdet (PLO) håper at resultatene kan brukes til å videreutvikle arbeidssituasjonen for deg og dine medarbeidere. Hvilke ansatte/personalgrupper som inviteres til deltakelse, er besluttet i samarbeid mellom doktorgradskandidaten, hovedverneombudet for PLO, hovedtillitsvalgte og ledelsen i PLO.

HVA INNEBÆRER DITT JA?

Ditt *ja* innebærer samtykke til deltakelse uten informasjon om du kommer i en av intervensjons- eller sammenligningsgruppene. Videre innebærer det besvarelse av spørreskjema (varighet ca. 60 minutter) ved tre ulike tidspunkt, samt deltakelse i individuelt dybdeintervju som registreres via lydbånd. Spørreskjemaet tar for seg din erfaring med ulike organisatoriske og psykososiale arbeidsmiljøforhold, jobbengasjement, mental helse, sykefravær, prestasjoner i form av personorientert helseomsorg og erfaringer fra deltakelse i intervensjonen. Det vil også innhentes informasjon om oppfatninger/vurderinger av ledelse ved tjenestestedet og nærmeste leder, samt om kjønn, aldersgruppe, utdanningsnivå og varighet og størrelse på ditt ansettelsesforhold. Dine svar avgis i en papirbasert versjon av spørreskjema, og vil senere overføres og lagres elektronisk av doktorgradskandidaten. Alle data brukes til effektvurdering og videreutvikling av intervensjonen.

MULIGE FORDELER OG ULEMPER

Det er ingen ulemper eller risiko knyttet til deltagelse i forskningsprosjektet. Det vil heller ikke ha noen negative konsekvenser for deg hvis du i utgangspunktet ikke vil delta eller senere velger å trekke deg. For eksempel vil det ikke påvirke ditt arbeid ved det kommunale bo- og behandlingssenteret i Bærum, ditt forhold til ledelsen i PLO eller lignende.

FRIVILLIG DELTAKELSE OG MULIGHET FOR Å TREKKE SITT SAMTYKKE

Det er frivillig å delta i prosjektet. Dersom du ønsker å delta, undertegner du samtykkeerklæringen på siste side. Du kan når som helst og uten å oppgi noen grunn trekke ditt samtykke. Dersom du trekker deg fra prosjektet, kan du kreve å få slettet innsamlede opplysninger, med mindre opplysningene allerede er brukt i vitenskapelige publikasjoner.

DITT PERSONVERN – HVORDAN VI OPPBEVARER OG BRUKER DINE OPPLYSNINGER

Vi behandler opplysninger om deg basert på ditt samtykke, og bruker disse kun til formål angitt i dette skrivet. Universitetet i Sørøst-Norge (USN) er den behandlingsansvarlige i dette prosjektet og alle elektroniske forskningsdata vil oppbevares på et dedikert og sikkert filområde ved USN. Dette filområdet er kun tilgjengelig for doktorgradskandidaten samt statistiker og kandidatens veiledere ved USN, som alle er underlagt taushetsplikt. Øvrige ansatte i Bærum kommune vil ikke ha adgang til dataene. Alle svar behandles konfidensielt og i samsvar med personvernregelverket og vil ikke kunne tilbakeføres til enkeltpersoner i publikasjoner eller rapporter. Eksempelvis vil en liste med navnet og kontaktopplysningene dine lagres på et sikkert sted adskilt fra øvrige data. Lydopptak oppbevares innelåst og gjøres utilgjengelig for andre enn doktorgradskandidaten.

Som deltaker i forskningsprosjektet har du rett til innsyn i hvilke opplysninger som er registrert om deg og til å få korrigert og eventuelt slettet disse. Du kan også få utlevert en kopi av dine personopplysninger, samt sende en klage til personvernombudet eller Datatilsynet om behandlingen av disse. Alle elektroniske opplysninger anonymiseres og lydopptak slettes når prosjektet er ferdigstilt, det vil si senest innen 01.07.2023.

GODKJENNING

Prosjektet er godkjent av Norsk Senter for Forskningsdata (NSD) (referanse: 622309) og Regionale komiteer for medisinsk og helsefaglig forskningsetikk (REK).

HVOR KAN JEG FINNE UT MER?

Hvis du har spørsmål til studien, eller ønsker å benytte deg av dine rettigheter, ta kontakt med:

- **Prosjektleder v/behandlingsansvarlig institusjon Bedriftshelsetjenesten i Bærum kommune, Hilde Hovda Midje.** Tlf: 918 85 569, e-post: hilde.midje@baerum.kommune.no
- **Hovedveileder ved Universitetet i Sørøst-Norge, avdeling Vestfold, Steffen Torp.** Tlf: 959 33 134, e-post steffen.torp@usn.no
- **Personvernombudet i Bærum kommune, Anette Engum.** Tlf: 930 94 804, e-post: anette.engum@baerum.kommune.no
- **Norges Forskningsråd (NFR).** Tlf: 22 03 70 00, e-post: post@forskningsradet.no
- **Norsk Senter for Forskningsdata AS (NSD).** Tlf: 55 58 21 17, e-post personverntjenester@nsd.no

GÅ TIL SISTE SIDE FOR AVKRYSNING OG SIGNERING!

SAMTYKKE TIL DELTAKELSE I PROSJEKTET

JEG ER VILLIG TIL Å DELTA I PROSJEKTET

Jeg har mottatt og forstått informasjon om prosjektet «*Nærværspilotene – fra holdning til handling*» og har fått anledning til å stille spørsmål.

Jeg samtykker til:

- ☐ å delta i gruppen som får intervensjonen
- ☐ å delta i gruppen som ikke får intervensjonen
- ☐ at intervensjonen jeg deltar i observeres av ekstern forsker
- ☐ å delta i individuelt intervju med ekstern forsker og som det tas lydopptak av
- ☐ Jeg samtykker til at mine opplysninger behandles frem til prosjektet er avsluttet, senest 01.07.2023

Sted og dato

Deltakers signatur

Deltakers navn med trykte bokstaver

Jeg bekrefter å ha gitt informasjon om prosjektet

Sted og dato

Signatur

Rolle i prosjektet

Attachment 2

INTERVJUGUIDE

DELSTUDIE 3: Opplevelse av sammenheng mellom

jobbengasjement – arbeidsmiljø - personorientert praksis

Semi-strukturert individuelt intervju med ansatt, varighet ca. 60 minutter.

HUSK: Innlede med informasjon om hensikt med studien, hvordan intervjudata håndteres og hva de skal brukes til, at det er frivillig deltakelse og kontinuerlig mulighet til å trekke seg, o.l.

BAKGRUNNSINFORMASJON:
Dette er intervju nr. …. og i dag er det …… (dato) 2020.
Hva er navnet ditt, alder, kjønn, stilling, arbeidssted, hvor lenge har du jobbet på ……., hvor stor stilling har du?

STUDIENS HENSIKT OG BEGREPSAVKLARINGER:

Hovedmålet med denne studien som du nå bidrar med data til, er å undersøke hva som er med på å skape en *personorientert praksis*, dvs. hva som har betydning for at du skal kunne gi brukerne personsentrert omsorg og pleie. Jeg kommer i den sammenheng til også å spørre deg om ditt jobbengasjement og arbeidsmiljø.

For at vi skal ta utgangspunkt i en noenlunde felles forståelse, så vil jeg forklare noen begreper:

Med personorientert praksis

- mener jeg omsorg og pleie som tar hensyn til brukerens bakgrunn – livsfortelling – tilstand - fysiske omgivelser – individuelle behov og ønsker.

Med jobbengasjement

- mener jeg en positiv og arbeidsrelatert tilstand av velvære og overskudd. Jobbengasjement henger sterkt sammen med *motivasjon* i arbeidet. Når man er jobbengasjert, så får man frem og bruker ressursene og styrkene i seg selv, man yter sitt beste, er robust og tåler litt påkjenning, man har glede av arbeidet og er stolt over jobben man gjør.

Når det gjelder arbeidsmiljø

- så består det av ulike forhold. Det har med *fysiske* forhold å gjøre, med *ledelse*, med *organisering*, *tilrettelegging* og *styring* av arbeidet og med *mellommenneskelige* forhold – som for eksempel kommunikasjon, støtte og samarbeid, forutsigbarhet og medvirkning.

INNLEDENDE DEL - LITT OM KONTEKST/RAMMER/BAKTEPPE:
OBS: sjekke ut om det de forteller er knyttet til slik det faktisk er nå, eller om det handler om gamle tilstander!

1. KORT: Hvordan vil du beskrive arbeidsmiljøet ditt (FØR korona-tiden!)?

2. KORT: Når du tenker på forholdet du har til arbeidet ditt – vil du si at du er jobbengasjert?

3. Hvis du tenker generelt for din avdeling – i hvilken grad har dere fokus på dette med personorientert omsorg og pleie? Er dere er vant til å *snakke* om det og *praktisere* det?

HOVEDDEL - HVA SKAL TIL FOR Å YTE GODT I JOBBEN (PERSONORIENTERT PRAKSIS):

4. Hvilke forhold på tjenestestedet og i arbeidsmiljøet opplever du at er spesielt viktige for å kunne gi *god personorientert omsorg* og *pleie*?

<u>Mine mulige innspill til samtalen:</u>
Hvor viktig er for eksempel:

a) Forholdet mellom kollegaene i personalgruppen («Effective staff relationship»):
   - At dette er positivt, støttende, trygt, respektfullt, ol.
b) Autonomi/selvbestemmelse/selvstyring i arbeidet («Power sharing»)
c) Likeverdig forhold mellom de som inngår i personalgruppen + at den enkeltes bidrag blir anerkjent og verdsatt («Power sharing»)
d) Tydelig oppgave og ansvarsfordeling = rolleklarhet + riktig/god blanding av kompetanse («Appropriate skill mix»)
e) *Forhold på organisasjonsnivå*: bemanningsnivå, at man anerkjenner innovative/nytenkende forslag og fleksibilitet for tjenestestedene, støtte fra toppledelsen i PLO, klar og tydelig overordnet målsetning for arbeidet, mm. («Supportive organisational systems»)

SAMMENHENG ARBEIDSMILJØ - JOBBENGASJEMENT:
OBS: sjekke ut om det de forteller er knyttet til slik det faktisk er nå, eller om det handler om gamle tilstander!

5. Hvis du tenker på jobbengasjement. Hvilke forhold i arbeidsmiljøet er viktig for ditt *jobbengasjement*? Hva skal til for at du blir jobbengasjert?

Mine mulige innspill til samtalen:
Ledelse – forhold til kollegaer – samarbeid – kommunikasjon – støtte – rolleklarhet – organisering – medvirkning – autonomi – mestring - fysiske forhold - forutsigbarhet

SAMMENHENG JOBBENGASJEMENT – PERSONORIENTERT PRAKSIS:

LES: Hvis vi tenker at *jobbengasjement* er en positiv tilstand hvor du er på ditt aller beste i jobben din:

6. Kan du se noen sammenheng mellom det å være *jobbengasjert* og evnen til å gi *personorientert omsorg og pleie*?

7. Kan du se at jobbengasjement på noen måte kan sette deg bedre i stand til å yte alt det som skal til for å gi personorientert omsorg og pleie? Evt. Hvordan?

Mine mulige innspill til samtalen:
Hvordan kan jobbengasjement påvirke:

a) Det å *etablere en god relasjon til brukeren* og være fullt til stede i møtet med denne personen («Engaging authentically»)
b) Det å være «*sympatisk tilstede*», altså anerkjenne brukeren som et unikt individ, være fullt tilstede i øyeblikket og respondere adekvat/empatisk på brukerens synspunkter og behov («Being sympathetically present»)
c) Det å tilrettelegge for *brukerens medvirkning* i omsorgen og pleien som gis – dvs. gi god informasjon, ta med brukeren på laget i beslutninger som tas, prøve å tilrettelegge pleien slik at den blir i tråd med brukerens ønsker, preferanser og verdier, mm. («Sharing decision-making»)
d) Det å *blir godt kjent med brukerens* historie, ståsted, verdier og forståelse av seg selv og omgivelsene («Working with patients' beliefs and values»)
e) Evnen til å gi brukeren helhetlig/holistisk omsorg og pleie: at det er en *fysisk dimensjon* = har med kroppens funksjon + dekke basisbehov (mat, drikke ol.), *mental dimensjon* = mentale prosesser og relasjoner, *sosial og kulturell dimensjon*, mm.

SLUTTKOMMENTAR:

Er det noe annet du mener er viktig å få med i denne samtalen?

_____

EN SPØRREUNDERSØKELSE BLANT ANSATTE I BO- OG BEHANDLINGSSENTRE I BÆRUM KOMMUNE

Takk for at du deltar i forskning som gir økt kunnskap om arbeidsmiljøet til ansatte i kommunale bo- og behandlingssentre.

Ditt bidrag er avgjørende for at vi kan videreutvikle *Holdningsskapende nærværsarbeid*, et arbeidsmiljøtiltak for økt jobbengasjement, helse og jobbprestasjoner.

Det finnes ingen «riktige» eller «gale» svar til disse spørsmålene, men det er viktig at du svarer så nøyaktig som mulig. **Bruk tiden du trenger til å svare på ALLE spørsmålene**.

ARK KIWEST 2.3

Bakgrunnsinformasjon

1. **Kjønn:** ……..
2. **Alder:**
   ☐ Under 30 år ☐ 30 – 39 år ☐ 40 – 49 år ☐ 50 – 59 år ☐ 60 år eller mer
3. **Stillingskategori:**
   ☐ Sykepleier ☐ Helsefagarbeider/hjelpepleier ☐ Vernepleier ☐ Ufaglært ☐Annet
4. **Ansettelsesforhold:**
   ☐ Fast ☐ Midlertidig/vikariat
5. **Stillingsandel:**
   ☐ Under 25% ☐ 25% - 49% ☐ 50% ☐ 51% - 99% ☐ 100%
6. **Ansettelsestid ved aktuelt bo- og behandlingssenter:**
   ☐ Under 5 år ☐ 5 – 9 år ☐ 10 år eller mer

Mellommenneskelige forhold

7. Hvor enig eller uenig er du i følgende utsagn om forholdene i din avdeling, …?

	Svært uenig 1	Uenig 2	Verken / eller 3	Enig 4	Svært enig 5
Jeg opplever at jeg er en del av et fellesskap på min enhet	☐	☐	☐	☐	☐
Klimaet i min avdeling er stivbeint og regelstyrt	☐	☐	☐	☐	☐
Jeg har store muligheter til å forbedre mine personlige prestasjoner i denne avdelingen	☐	☐	☐	☐	☐
Klimaet i min avdeling er mistroisk og mistenksomt	☐	☐	☐	☐	☐
Avdelingen vår står samlet i sine anstrengelser for å nå sine prestasjonsmål	☐	☐	☐	☐	☐
Det er god stemning mellom meg og mine kollegaer	☐	☐	☐	☐	☐
Det er et godt fellesskap mellom kollegene i avdelingen min	☐	☐	☐	☐	☐
Klimaet i min avdeling er konkurranseorientert	☐	☐	☐	☐	☐
Jeg er fornøyd med min avdelings innsats for å nå målene	☐	☐	☐	☐	☐
Klimaet i min avdeling er oppmuntrende og støttende	☐	☐	☐	☐	☐
Klimaet i min avdeling er avslappet og behagelig	☐	☐	☐	☐	☐

Jobbkrav

9. Hvor enig eller uenig er du i følgende utsagn, …?

	Svært uenig 1	Uenig 2	Verken / eller 3	Enig 4	Svært enig 5
I arbeidet må jeg ofte forholde meg til sterke følelser, som f.eks. sinne eller sorg, hos brukere eller andre ikke-ansatte	☐	☐	☐	☐	☐
I arbeidet må jeg ofte skjule sterke følelser, som f.eks. irritasjon eller sinne, overfor brukere eller andre ikke-ansatte	☐	☐	☐	☐	☐
Jeg får ofte oppgaver uten tilstrekkelige hjelpemidler og ressurser til å fullføre dem	☐	☐	☐	☐	☐
Det stilles krav til meg om stadig å utvikle min kompetanse	☐	☐	☐	☐	☐
Det skjer ganske ofte at jeg må jobbe under sterkt tidspress	☐	☐	☐	☐	☐
Jeg mottar ofte motstridende forespørsler fra to eller flere personer	☐	☐	☐	☐	☐
Jobben min inneholder oppgaver som er i strid med mine personlige verdier	☐	☐	☐	☐	☐
Arbeidets karakter gjør at jeg må utvikle meg og tenke nytt hele tiden	☐	☐	☐	☐	☐
Jeg har ofte for mye å gjøre på jobb	☐	☐	☐	☐	☐
Jeg må gjøre ting jeg mener burde vært gjort annerledes	☐	☐	☐	☐	☐
Jeg føler press om stadig å måtte lære noe nytt for å kunne klare mine arbeidsoppgaver	☐	☐	☐	☐	☐
Jeg har tilstrekkelig med tid til å gjøre det som forventes av meg i jobben min	☐	☐	☐	☐	☐

Arbeidsorganisasjon og jobbinnhold

10. Hvor enig eller uenig er du i følgende utsagn om din arbeidssituasjon og din avdeling, …?

	Svært uenig 1	Uenig 2	Verken / eller 3	Enig 4	Svært enig 5
Det er klart og tydelig uttalt hva som forventes av meg i mitt arbeid	☐	☐	☐	☐	☐
Min avdeling utvikles hele tiden for å kunne møte de ansattes behov	☐	☐	☐	☐	☐
Jeg må utføre arbeidsoppgaver som jeg mener bør gjøres av en annen	☐	☐	☐	☐	☐
Jeg synes at målene for mitt arbeid er diffuse og uklare	☐	☐	☐	☐	☐
Jeg har tilstrekkelig innflytelse i mitt arbeid	☐	☐	☐	☐	☐
Min avdeling er åpen og tilpasser seg til forandringer	☐	☐	☐	☐	☐
Jeg kan selv bestemme hvordan jeg skal organisere arbeidet mitt	☐	☐	☐	☐	☐
Jeg må utføre arbeidsoppgaver som setter meg i ubehagelige situasjoner	☐	☐	☐	☐	☐
Jeg har en klar oppfatning om hvilke arbeidsoppgaver som inngår i mitt arbeidsområde	☐	☐	☐	☐	☐
I min avdeling er det ingen som hører på nye forslag og ideer	☐	☐	☐	☐	☐
Jeg må utføre arbeidsoppgaver som jeg mener det er urettferdig at jeg skal gjøre	☐	☐	☐	☐	☐
Min avdeling er fleksibel og tilpasser seg hele tiden til nye ideer	☐	☐	☐	☐	☐
Det finnes rom for at jeg kan ta egne initiativ i jobben min	☐	☐	☐	☐	☐
Jeg må utføre arbeidsoppgaver som jeg mener krever mer av meg enn det som er rimelig	☐	☐	☐	☐	☐
Min avdeling streber heller etter å beholde status quo enn etter forandringer	☐	☐	☐	☐	☐
Jeg styrer selv min arbeidssituasjon i den retning jeg ønsker	☐	☐	☐	☐	☐

Ledelse

11. Hvor enig eller uenig er du i følgende utsagn om ledelse ved din enhet, …?

	Svært uenig 1	Uenig 2	Verken / eller 3	Enig 4	Svært enig 5
Ledelsen i min avdeling er alltid pålitelig	☐	☐	☐	☐	☐
Jeg kan stole på informasjon fra ledelsen i min avdeling	☐	☐	☐	☐	☐
Jeg kan forvente at ledelsen i min avdeling behandler meg konsekvent og forutsigbart	☐	☐	☐	☐	☐
Ledelsen i min avdeling skjuler viktig informasjon for ansatte	☐	☐	☐	☐	☐
Jeg blir behandlet rettferdig av ledelsen i min avdeling	☐	☐	☐	☐	☐
Ledelsen i min avdeling opptrer alltid ærlig mot meg	☐	☐	☐	☐	☐
Mitt arbeid blir anerkjent og verdsatt av ledelsen i min avdeling	☐	☐	☐	☐	☐
Det er mulig for de ansatte i min avdeling å uttrykke sine oppfatninger	☐	☐	☐	☐	☐
Jeg har full tillit til ledelsen i min avdeling	☐	☐	☐	☐	☐
Jeg blir respektert av ledelsen i min avdeling	☐	☐	☐	☐	☐
Ledelsen i min avdeling stoler på at medarbeiderne gjør en god jobb	☐	☐	☐	☐	☐
Jeg er sikker på at jeg kan stole på ledelsen i min avdeling	☐	☐	☐	☐	☐

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12. «*Din nærmeste leder*» er den du har eller skal ha medarbeidersamtaler med.

Min nærmeste leder, …

	Svært uenig 1	Uenig 2	Verken / eller 3	Enig 4	Svært enig 5
… bidrar til at jeg får utviklet mine ferdigheter	☐	☐	☐	☐	☐
… oppmuntrer meg til å delta i viktige avgjørelser	☐	☐	☐	☐	☐
… oppmuntrer meg til å si fra når jeg har en annen mening	☐	☐	☐	☐	☐
… behandler de ansatte rettferdig	☐	☐	☐	☐	☐
… snakker med meg om hvor godt jeg utfører arbeidet mitt	☐	☐	☐	☐	☐
… lytter til meg når jeg har problemer med arbeidet	☐	☐	☐	☐	☐
… fordeler arbeidsoppgaver rettferdig	☐	☐	☐	☐	☐
… behandler de ansatte upartisk	☐	☐	☐	☐	☐
… gir meg den hjelpen og støtten jeg trenger fra henne/han	☐	☐	☐	☐	☐

Ditt forhold til jobben

14. Hvor enig eller uenig er du i følgende utsagn?

	Svært uenig 1	Uenig 2	Verken / eller 3	Enig 4	Svært enig 5
Jeg forteller med glede om min arbeidsplass	☐	☐	☐	☐	☐
Jeg føler meg motivert og engasjert i arbeidet mitt	☐	☐	☐	☐	☐
Mine arbeidsoppgaver er meningsfylte	☐	☐	☐	☐	☐
Jeg vil kunne anbefale en god venn å søke stilling på min arbeidsplass	☐	☐	☐	☐	☐
Jobben påvirker helsen min på en positiv måte	☐	☐	☐	☐	☐
Jeg opplever at min arbeidsplass har stor betydning for meg	☐	☐	☐	☐	☐
Jobben påvirker helsen min på en negativ måte	☐	☐	☐	☐	☐
Jeg føler at arbeidet jeg gjør er viktig	☐	☐	☐	☐	☐

15.

Ta stilling til følgende utsagn…:

	Aldri 0	Noen ganger i året el. sjeld-nere 1	En gang i måneden el. sjeld-nere 2	Noen ganger i måneden 3	En gang i uka 4	Noen ganger i uka 5	Hver dag 6
Jeg er full av energi på jobb	☐	☐	☐	☐	☐	☐	☐
Jeg føler meg sterk og energisk når jeg arbeider	☐	☐	☐	☐	☐	☐	☐
Når jeg står opp om morgenen, har jeg lyst til å gå på jobb	☐	☐	☐	☐	☐	☐	☐
Jeg er entusiastisk når det gjelder jobben min	☐	☐	☐	☐	☐	☐	☐
Jeg blir inspirert av jobben min	☐	☐	☐	☐	☐	☐	☐
Jeg er stolt av det arbeidet jeg gjør	☐	☐	☐	☐	☐	☐	☐
Jeg føler meg glad når jeg er fordypet i arbeidet mitt	☐	☐	☐	☐	☐	☐	☐
Jeg er oppslukt av arbeidet mitt	☐	☐	☐	☐	☐	☐	☐
Jeg blir fullstendig revet med av arbeidet mitt	☐	☐	☐	☐	☐	☐	☐

I løpet av de siste fire (4) ukene, hvor ofte har du følt deg;

1. **Følelsesmessig utmattet (sett ett kryss)**

Hele tiden	Nesten hele tiden	Noe av tiden	Nesten aldri	Aldri

2. **Veldig sliten (sett ett kryss)**

Hele tiden	Nesten hele tiden	Noe av tiden	Nesten aldri	Aldri

3. **Irritabel (sett ett kryss)**

Hele tiden	Nesten hele tiden	Noe av tiden	Nesten aldri	Aldri

4. **Stresset (sett ett kryss)**

Hele tiden	Nesten hele tiden	Noe av tiden	Nesten aldri	Aldri

Tenk på eget sykefravær grunnet din sykdom (ikke barns) de siste seks (6) måneder frem til dags dato og sett ett kryss ved hvert spørsmål:

1. **Hvor mange ganger har du hatt en periode med egenmeldt fravær?**

   Ingen☐ 1-2 ☐ 3 eller flere ☐

2. **Hvor mange ganger har du hatt en periode med legemeldt fravær?**

   Ingen☐ 1-2 ☐ 3 eller flere ☐

3. **Hvor mange dager har du totalt vært borte fra jobb, dvs. egenmeldt og legemeldt fravær sammenlagt? Fyll inn rett antall dager (ELLER uker):**

   Totalt ____ dager (ELLER: Totalt ____ uker)

DELTAKELSE I SAMLINGER

OBS: Dette spørsmålet er kun til ansatte i avdelinger som har fått bistanden «Holdningsskapende nærværsarbeid», dvs. ansatte i intervensjonsgruppene!

1. **Vi har arrangert totalt 4 samlinger for din personalgruppe som et ledd i bistanden «Holdningsskapende nærværsarbeid».**

   Hvor mange av disse 4 samlingene har du deltatt i? Fyll inn nedenfor:

   Jeg har deltatt i totalt _____ samlinger

Vennligst kryss av for hvor enig eller uenig du er i hver av de følgende påstandene:

		Helt uenig	Uenig	Nøytral	Enig	Helt enig
1.	Jeg har tilstrekkelige ferdigheter til å kunne drøfte ulike behandlings-muligheter.	☐	☐	☐	☐	☐
2.	Når jeg utfører helsearbeid har jeg oppmerksomhet mot mer enn den fysiske arbeidsoppgaven.	☐	☐	☐	☐	☐
3.	Jeg søker aktivt muligheter til å utvide min faglige kompetanse.	☐	☐	☐	☐	☐
4.	Jeg sørger for å lytte til og anerkjenne andre sine perspektiver.	☐	☐	☐	☐	☐
5.	Jeg viser respekt for andre når jeg kommuniserer.	☐	☐	☐	☐	☐
6.	Jeg bruker ulike kommunikasjons-strategier for å finne løsninger vi enes om.	☐	☐	☐	☐	☐
7.	Jeg er bevisst hvordan min non-verbale kommunikasjon påvirker min samhandling med andre.	☐	☐	☐	☐	☐
8.	Jeg streber etter å gi helsehjelp av høy kvalitet.	☐	☐	☐	☐	☐
9.	Jeg bruker anledninger til å bli kjent med personene og deres familier for å kunne gi helhetlig helsehjelp.	☐	☐	☐	☐	☐
10.	Jeg gjør det jeg kan for å bruke tid sammen med personer som mottar helsehjelp.	☐	☐	☐	☐	☐

Vennligst kryss av for hvor enig eller uenig du er i hver av de følgende påstandene:

		Helt uenig	Uenig	Nøytral	Enig	Helt enig
11.	Jeg tilstreber å gi helsehjelp av høy kvalitet som er kunnskapsbasert.	☐	☐	☐	☐	☐
12.	Jeg ser hele tiden etter anledninger til å forbedre pasient- eller brukeropplevelsen.	☐	☐	☐	☐	☐
13.	Jeg tar meg tid til å reflektere over hvorfor jeg reagerer som jeg gjør i visse situasjoner.	☐	☐	☐	☐	☐
14.	Jeg reflekterer og vurderer om mine handlinger samsvarer med mine personlige verdier og måten jeg ønsker å fremstå på.	☐	☐	☐	☐	☐
15.	Jeg er oppmerksom på hvordan mine livserfaringer påvirker mitt arbeid.	☐	☐	☐	☐	☐
16.	Jeg ber aktivt om tilbakemelding fra andre på arbeidet mitt.	☐	☐	☐	☐	☐
17.	Jeg utfordrer mine kollegaer når arbeidet de utfører ikke er i samsvar med teamets verdigrunnlag.	☐	☐	☐	☐	☐
18.	Jeg støtter mine kollegaer til å utvikle arbeidet sitt slik at det reflekterer teamets felles verdigrunnlag.	☐	☐	☐	☐	☐
19.	Jeg oppdager når det er mangel på kunnskap og ferdigheter i teamet vårt og betydningen det har for helsearbeidet.	☐	☐	☐	☐	☐
20.	Jeg er i stand til å ta opp forholdet når kompetansen til bemanningen er under akseptabelt nivå.	☐	☐	☐	☐	☐
21.	Jeg verdsetter arbeidet fra alle i teamet og hvordan hver enkelt bidrar i helsearbeidet.	☐	☐	☐	☐	☐
22.	Jeg deltar aktivt på møter for å informere om beslutninger jeg må ta i arbeidet mitt.	☐	☐	☐	☐	☐
23.	Jeg deltar på stormøter innad i organisasjonen som har innflytelse på praksis.	☐	☐	☐	☐	☐
24.	Jeg får delta på møter der jeg aktivt kan påvirke arbeidet hvor jeg jobber.	☐	☐	☐	☐	☐

Vennligst kryss av for hvor enig eller uenig du er i hver av de følgende påstandene:

		Helt uenig	**Uenig**	**Nøytral**	**Enig**	**Helt enig**
25.	Jeg blir spurt om mine faglige vurderinger (f.eks. på rapporter, fagmøter, og planlegging av utskriving).	☐	☐	☐	☐	☐
26.	Jeg jobber i et team som verdsetter bidraget mitt til å gjøre helsearbeidet personorientert.	☐	☐	☐	☐	☐
27.	Jeg arbeider i et team som støtter alles bidrag til å gjøre helsearbeidet personorientert.	☐	☐	☐	☐	☐
28.	Mine kollegaer er gode rollemodeller for å utvikle gode relasjoner.	☐	☐	☐	☐	☐
29.	Bidraget mine kollegaer gir blir sett og anerkjent.	☐	☐	☐	☐	☐
30.	Jeg deltar aktivt i å utvikle felles mål.	☐	☐	☐	☐	☐
31.	Lederen vår legger til rette for deltakelse.	☐	☐	☐	☐	☐
32.	Jeg oppfordres og støttes til å drive med utviklingsarbeid i praksis.	☐	☐	☐	☐	☐
33.	Jeg støttes i å gjøre ting annerledes for å forbedre arbeidet mitt.	☐	☐	☐	☐	☐
34.	Jeg er i stand til å balansere bruk av etablert kunnskap med å ta risiko.	☐	☐	☐	☐	☐
35.	Jeg er forpliktet til å forbedre helsearbeid ved å utfordre praksis.	☐	☐	☐	☐	☐
36.	Jeg er oppmerksom på hvordan fysiske omgivelser påvirker personers verdighet.	☐	☐	☐	☐	☐
37.	Jeg utfordrer andre til å reflektere over hvilken betydning ulike elementer i de fysiske omgivelsene kan ha for personorientering (lyd, lys, lukt, varme, estetikk).	☐	☐	☐	☐	☐
38.	Jeg finner kreative måter å forbedre de fysiske omgivelsene på.	☐	☐	☐	☐	☐
39.	Vi tar oss tid til å feire våre prestasjoner.	☐	☐	☐	☐	☐

Vennligst kryss av for hvor enig eller uenig du er i hver av de følgende påstandene:

		Helt uenig	Uenig	Nøytral	Enig	Helt enig
40.	Min organisasjon anerkjenner og belønner suksess.	☐	☐	☐	☐	☐
41.	Jeg anerkjennes for mitt bidrag til at personer får en god pasient- eller brukeropplevelse.	☐	☐	☐	☐	☐
42.	Jeg støttes i å si fra om bekymringer for sider ved helsearbeidet.	☐	☐	☐	☐	☐
43.	Jeg har mulighet til å diskutere mitt arbeid og min faglig utvikling med jevne mellomrom.	☐	☐	☐	☐	☐
44.	Jeg bruker min kunnskap om personen i helsearbeidet.	☐	☐	☐	☐	☐
45.	Når jeg arbeider med personen ser jeg sammenhengen med familie og hjelpere.	☐	☐	☐	☐	☐
46.	Jeg søker tilbakemeldinger om hvordan personer forstår sin pasient- eller brukeropplevelse.	☐	☐	☐	☐	☐
47.	Jeg oppfordrer mennesker til å snakke om det som er viktig for dem.	☐	☐	☐	☐	☐
48.	Jeg involverer familien i beslutninger når det er på sin plass og/eller i tråd med personens ønsker.	☐	☐	☐	☐	☐
49.	Jeg jobber sammen med personen for å sette helserelaterte mål for fremtiden.	☐	☐	☐	☐	☐
50.	Jeg legger til rette for at personer som mottar helsehjelp kan søke informasjon om behandling hos annet helsepersonell.	☐	☐	☐	☐	☐
51.	Jeg forsøker å forstå personens eget perspektiv.	☐	☐	☐	☐	☐
52.	Jeg søker felles løsninger når mine mål for personen er forskjellig fra personens eget syn på ting.	☐	☐	☐	☐	☐
53.	Jeg involverer personer i arbeids-prosessene der det er naturlig.	☐	☐	☐	☐	☐

Vennligst kryss av for hvor enig eller uenig du er i hver av de følgende påstandene:

		Helt uenig	Uenig	Nøytral	Enig	Helt enig
54.	Jeg lytter aktivt til personer som mottar helsehjelp for å identifisere behov som ikke er imøtekommet.	☐	☐	☐	☐	☐
55.	Jeg samler tilleggsinformasjon for å støtte personen som mottar helsehjelp.	☐	☐	☐	☐	☐
56.	Jeg sørger for at min fulle oppmerksomhet er rettet mot den personen jeg er sammen med.	☐	☐	☐	☐	☐
57.	Jeg tilstreber å lære å kjenne hele personen.	☐	☐	☐	☐	☐
58.	Når jeg vurderer personens behov tar jeg med alle aspekter av livet deres.	☐	☐	☐	☐	☐
59.	Jeg gir helsehjelp som tar hensyn til hele mennesket.	☐	☐	☐	☐	☐

Attachment 4

Message 17.07.2019 09:04
Det innsendte meldeskjemaet med referansekode 622309 er nå vurdert av NSD.

Følgende vurdering er gitt:

Det vil bli levert en fremleggingsvurdering til REK. Vedtak vil bli lastet opp til NSD når det foreligger. Vi minner om at dersom vedtak fra REK gjør at prosjektopplegget blir endret, må dette opplyses om i meldeskjema. ’

Det er vår vurdering at behandlingen av personopplysninger i prosjektet vil være i samsvar med personvernlovgivningen så fremt den gjennomføres i tråd med det som er dokumentert i meldeskjemaet den 17.07.2019 med vedlegg, samt i meldingsdialogen mellom innmelder og NSD. Behandlingen kan starte.

MELD VESENTLIGE ENDRINGER
Dersom det skjer vesentlige endringer i behandlingen av personopplysninger, kan det være nødvendig å melde dette til NSD ved å oppdatere meldeskjemaet. Før du melder inn en endring, oppfordrer vi deg til å lese om hvilke type endringer det er nødvendig å melde: nsd.no/personvernombud/meld_prosjekt/meld_endringer.html
Du må vente på svar fra NSD før endringen gjennomføres.

TYPE OPPLYSNINGER OG VARIGHET
Prosjektet vil behandle særlige kategorier av personopplysninger om helseopplysninger og alminnelige kategorier av personopplysninger frem til 01.06.2023.

LOVLIG GRUNNLAG Prosjektet vil innhente samtykke fra de registrerte til behandlingen av personopplysninger. Vår vurdering er at prosjektet legger opp til et samtykke i samsvar med kravene i art. 4 nr. 11 og art. 7, ved at det er en frivillig, spesifikk, informert og utvetydig bekreftelse, som kan dokumenteres, og som den registrerte kan trekke tilbake.

Lovlig grunnlag for behandlingen vil dermed være den registrertes uttrykkelige samtykke, jf. personvernforordningen art. 6 nr. 1 a), jf. art. 9 nr. 2 bokstav a, jf. personopplysningsloven § 10, jf. § 9 (2).

PERSONVERNPRINSIPPER
NSD vurderer at den planlagte behandlingen av personopplysninger vil følge prinsippene i personvernforordningen om:

- lovlighet, rettferdighet og åpenhet (art. 5.1 a), ved at de registrerte får tilfredsstillende informasjon om og samtykker til behandlingen

- formålsbegrensning (art. 5.1 b), ved at personopplysninger samles inn for spesifikke, uttrykkelig angitte og berettigede formål, og ikke viderebehandles til nye uforenlige formål
- dataminimering (art. 5.1 c), ved at det kun behandles opplysninger som er adekvate, relevante og nødvendige for formålet med prosjektet
- lagringsbegrensning (art. 5.1 e), ved at personopplysningene ikke lagres lengre enn nødvendig for å oppfylle formålet

DE REGISTRERTES RETTIGHETER
Så lenge de registrerte kan identifiseres i datamaterialet vil de ha følgende rettigheter: åpenhet (art. 12), informasjon (art. 13), innsyn (art. 15), retting (art. 16), sletting (art. 17), begrensning (art. 18), underretning (art. 19) og dataportabilitet (art. 20).

NSD vurderer at informasjonen som de registrerte vil motta oppfyller lovens krav til form og innhold, jf. art. 12.1 og art. 13.

Vi minner om at hvis en registrert tar kontakt om sine rettigheter, har behandlingsansvarlig institusjon plikt til å svare innen en måned.

FØLG DIN INSTITUSJONS RETNINGSLINJER
NSD legger til grunn at behandlingen oppfyller kravene i personvernforordningen om riktighet (art. 5.1 d), integritet og konfidensialitet (art. 5.1. f) og sikkerhet (art. 32).

For å forsikre dere om at kravene oppfylles, må dere følge interne retningslinjer og eventuelt rådføre dere med behandlingsansvarlig institusjon.

OPPFØLGING AV PROSJEKTET
NSD vil følge opp underveis (hvert annet år) og ved planlagt avslutning for å avklare om behandlingen av personopplysningene er avsluttet/ pågår i tråd med den behandlingen som er dokumentert.

Lykke til med prosjektet!

Kontaktperson hos NSD: Ina Nepstad
Tlf. Personverntjenester: 55 58 21 17 (tast 1)

Attachment 5

Region: REK sør-øst C

Saksbehandler: Claus Henning Thorsen

Telefon: 22845515

Vår dato: 29.11.2019

Vår referanse: 53664

Deres referanse: Hilde Hovda Midje 53664 Nærværspilotene - fra holdning til handling

Forskningsansvarlig: Universitetet i Sørøst-Norge

Søker: Hilde Hovda Midje

Søkers beskrivelse av formål:

I Bærum kommune gjennomføres det et forskningsprosjekt med fokus på arbeidsmiljøet til ansatte i kommunale bo- og behandlingssentre. Prosjektet er et samarbeid mellom kommunens bedriftshelsetjeneste og Universitetet i Sørøst-Norge og gjennomføres med støtte fra Norges forskningsråd ved ordningen Offentlig sektor-PhD (prosjektnr. 286454). Formålet er å videreutvikle et spesifikt arbeidsmiljøtiltak (intervensjon) som har til hensikt å stimulere til økt jobbengasjement, helse og jobbprestasjoner. Dette gjøres gjennom en effekt- og prosessevaluering av tiltaket. Det rekrutteres totalt fire (4) grupper ansatte tilhørende ulike bo- og behandlingsentre i Bærum kommune. Det er kun to (2) av gruppene som får intervensjonen, mens de andre utgjør grunnlaget for sammenligning. Forskningsdata samles inn via spørreskjema rett før, midtveis og rett etter gjennomført intervensjon, samt ved observasjon av elementer i intervensjonen og individuelle dybdeintervju av 5-6 ansatte.

REKs vurdering

Helseforskningsloven gjelder for medisinsk og helsefaglig forskning, det vil si «virksomhet som utføres med vitenskapelig metodikk for å skaffe til veie ny kunnskap om helse og sykdom», jf. helseforskningsloven § 2, jf.§ 4. I dette prosjektet skal man studere en

intervensjon for å stimulere til økt jobbengasjement, helse og jobbprestasjoner blant ansatte i kommunale bo- og behandlingssentre i Bærum

Slik komiteen oppfatter prosjektet, må hovedtyngden klassifiseres som arbeidslivsforskning. Komiteen har vurdert om studien likevel kan gi tilstrekkelig ny kunnskap om sykdom og (mental) helse til å falle innenfor helseforskningslovens virkeområde.

Slik komiteen leser protokollen, er hypotesen at det aktuelle tiltaket vil øke jobbengasjement. Det må anses som kjent at jobbengasjement er positivt for mental helse, så komiteen mener, basert på den fremlagte dokumentasjon, at studien således ikke har til formål å skaffe til veie ny kunnskap om helse og sykdom, slik dette forstås i helseforskningsloven § 4.

Prosjektet kan gjennomføres uten godkjenning av REK innenfor de ordinære ordninger for helsetjenesten med hensyn til for eksempel regler for taushetsplikt og personvern. Søker bør derfor ta kontakt med enten forskerstøtteavdeling eller personvernombud for å avklare hvilke retningslinjer som er gjeldende.

Vedtak Avvist (utenfor mandat)

Etter søknaden fremstår prosjektet ikke som medisinsk og helsefaglig forskning, og det faller derfor utenfor helseforskningslovens virkeområde, jf. helseforskningsloven § 2.

Komiteens avgjørelse var enstemmig.

Britt Ingjerd Nesheim professor dr. med. leder REK sør-øst

C Claus Henning Thorsen Seniorrådgiver

Dokumentet er elektronisk signert

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Hilde Hovda Midje

Doctoral dissertations at the University of South-Eastern Norway no. 197

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