KU LEUVEN

FACULTEIT SOCIALE WETENSCHAPPEN

Mountains of care: Organisational redesign and quality of working life in nursing homes

Lander VERMEERBERGEN

Proefschrift aangeboden tot het verkrijgen van de graad van Doctor in de Sociale Wetenschappen

Promotor: Prof. Dr. Geert Van Hootegem
Onderzoekseenheid: Centrum voor Sociologisch Onderzoek [CeSO]

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CHAPTER 1. INTRODUCTION

The ageing European population urges studies on how to improve quality of working life for care workers (Cooke & Bartram, 2015). The number of seniors aged over 64 in the EU28 is projected to almost double in size in relation to the number of people aged between 15 and 64 by 2050 (Eurostat, 2016). This could potentially lead to a shortage of formal care workers in nursing homes in the coming decades (Hussain et al., 2012), since it indicates that the number of seniors who need care in nursing homes will grow, while the working-age population will proportionally decrease (Katz, 2011; Pacolet et al., 2014; Spetz et al., 2015). Proportionally means here that in industrial societies the working age population will decrease percentagewise in comparison to the number of seniors. The demand for care workers will thus increase, while the supply of care workers will decrease. Not only will the number of nursing home residents increase in the coming decades, but these residents are expected to have higher care demands as well. The care needs of residents will increase (Pacolet et al., 2014), the resident population will become more diverse (Alfarah et al., 2012; Fokkema, 2012), and residents will expect a more person- and customer-oriented care in which they have an extensive say (Brune, 2011; Leventhal, 2008; Robison et al., 2014). They will also be aware of their rights (Gould, 2007) and voice complaints if they feel their expectations are not being met (Leventhal, 2008). As summarised by Pruchno et al. (2012, p. 152): '*They [baby boomers] will make demands on the services and institutions designed to provide health care (…) to previous cohorts of older people. Everything (…) has the potential to be altered'.*

Jobs in nursing homes are often considered stressful and unhealthy (Burns et al., 2016; Kirkcaldy and Martin, 2000; Tyler and Cushway, 1998). Empirical research has confirmed this statement to be true in several Western countries, such as Australia (Sargent et al., 2008) Switzerland (Dhaini et al., 2016), the Netherlands (Den Besten et al., 2009; FNV Zorg & Welzijn, 2015), and regions such as Flanders (Bourdeaud'hui et al., 2017). Quality of working life issues in nursing homes may prove to be an added burden on top of resolving the above-described labour shortages and the need to provide high quality care that fulfils residents' expectations. First, it is not only difficult to attract new workers to the sector and to convince workers who have left to return, but also to retain experienced workers (when jobs have a low quality of working life) (Hussain et al., 2012; Spetz et al., 2015). Second, it is difficult for passionate care workers (Bjerregaard et al., 2017) to provide resident-oriented care (Bishop et al., 2008; Burns et al., 2016) in an environment that is burdened with quality of working life issues. This is illustrated by a study, conducted by Burns et al. (2016), which showed that a low level of personal care in nursing homes could spring from excessive time pressure (i.e. a subdimension of a low quality of working life). Improving the quality of working life of care workers is consequently part of the solution if you want to resolve labour shortages and address higher care demands. More empirical research, however, is needed to find out how the quality of working life in nursing homes can be increased (Cooke

& Bartram, 2015). Before all else, this presupposes a better understanding of the factors that contribute to the quality of working life of care workers.

In the 1970s, the concept of person-centred and homelike living was translated from psychiatric care facilities to nursing homes (Wolfensberger, 1978). Nursing homes intended to give residents the opportunity to lead lives similar to those they had before they moved to the care facility. In nursing homes, the creation of this homelike feeling was realised with the introduction of small living units that house six up to fifteen residents (Van Audenhove et al., 2003; Verbeek et al., 2009; Zeisel et al., 1994). In Flanders, this concept has been termed 'normalised small-scale living' (kleinschalig genormaliseerd wonen). It is often argued that such living arrangements improve the quality of working life of care workers (e.g. Expertisecentrum Dementie Vlaanderen, 2012; Charlot et al., 2009, p. 60). Only a few empirical studies, however, have researched the validity of this statement (Verbeek, 2011). This dissertation discusses why and how NSSL affects the quality of working life, and thus adds to the growing body of literature on quality of working life in healthcare (see: the move from Triple Aim to Quadruple Aim in health policy studies, which is explained in detail in section 9.2; Bodenheimer & Sinsky, 2014). The objective of this thesis is to explore whether care workers in small and homelike nursing homes have a higher or a lower quality of working life in comparison to care workers in conventional nursing homes. In this dissertation the opposite of - and alternative to - normalised small-scale nursing home is defined as conventional or non-normalised large-scale nursing home. This thesis also investigates what factors caused these differences in the quality of working life.

In addition, concepts from organisation studies are used to discuss how pitfalls, detrimental to the quality of working life in normalised small-scale living (NSSL), can be avoided. This dissertation is especially inspired by the design principles set forth in modern or Low Countries sociotechnical theory (De Sitter, 1998; Van Hootegem, 2000), which underline that the quality of working life of employees is highly impacted by the organisation of work, i.e. organisational design or organisational structure (Pot et al., 2009; Vermeerbergen et al., 2016a). To be more specific, Modern Sociotechnical Theory (MST) builds upon the insights of traditional sociotechnical systems theory (Emery, 1959; Trist & Bamforth, 1951) and further develops an advanced approach to the organisation of work (see for example De Sitter et al., 1997; Huys et al., 1999; Benders et al., 2000; Van Hootegem, 2016). Until now, studies on NSSL have mostly focused on the integration of (more diverse) tasks within jobs, meaning that care, social and domestic tasks are combined in care jobs (e.g. De Rooij et al., 2012). Not enough attention, however, has been given to the broader organisation of work, specifically the way in which tasks are divided up between work units. This is exemplified by, for instance, the lack of attention paid to the manner in which residents are grouped across living units, or the way that decision authority and care and social tasks are divided up between work units. In sum, acknowledging the organisational structures in which NSSL-arrangements are realised will add a conceptual aspect to the NSSL model that will help us understand the factors that are assumed to contribute to a higher quality of working life of care workers.

A mixed-methods research design, consisting of two stages, was used to examine the general research objective. The first part of this (PhD) dissertation provides an overview of studies comparing the quality of working life of care workers in NSSL and conventional nursing homes. These studies showed that NSSL is a step forward towards achieving a higher quality of working life. However, there were also conflicting results in some of the reviewed studies – in part due to issues related to job isolation and high job demands. In order to explain the variation in findings of previous studies, primary data was collected in the second part of this (PhD) dissertation. The aim is to explain why and how this variation occurred. The results of the empirical research make it possible to clarify conflicting findings across previously published studies, and to suggest that solutions for the identified quality of working life issues in nursing homes may be found within the organisational structure.

This PhD dissertation focuses on the care situation in Flanders for five main reasons. First, it is assumed that NSSL nursing homes are being increasingly introduced in Flanders (Vermeerbergen et al., 2016b). This is both a condition and a reason because it means that (a) the region has a sufficient amount of organisations from which we can generate reliable data on what impact the NSSL concept has on the quality of working life of care workers, and (b) the increasing implementation shows the policy relevance of evaluating this relatively new concept. Second, MST is thought to have a strong presence in Flanders (Vereycken et al., 2017). This can be seen from the number of books, articles, reports, and PhD dissertations (especially at KU Leuven) that mainly make use of MST, the growing number of organisations participating in the workplace innovation programme 'Flanders Synergy' (for more information about the programma, see: Van Gramberen, 2018; Van Hootegem et al., 2008) that was inspired by MST, and the attention for MST in policy reports on the future of elderly care (Vandeurzen, 2017; Vandeurzen & Holtzer, 2015). Third, demographic projections for the state of care in Flanders indicate that it is headed towards a scenario where future labour shortages are expected and typical. The number of seniors in nursing homes in Flanders is set to increase from 65.197 residents in 2011 to 202.815 in 2059 (Pacolet et al., 2014), while the need for care workers will grow from 46.713 in 2015 (Agentschap Zorg & Gezondheid, 2016) to 113.592 in 2059 (Pacolet et al., 2014). Fourth, studying nursing homes in the Flemish care context was also pragmatically the preferred option, since these were located in close proximity of the KU Leuven campus. Fifth, care workers in nursing homes in Flanders experience several quality of working life issues, urging studies on how to mitigate these issues. Fifty-one per cent of care workers experienced excessive time pressure in 2016, and thirty-five per cent experienced insufficient autonomy in their job (Bourdeaud'hui et al., 2017). Similar quality of working life issues were found in the nursing home sector of other regions and countries (e.g. Den Besten et al., 2009; Dhaini et al., 2016; FNV Zorg & Welzijn, 2015; Sargent et al., 2008).

This dissertation makes theoretical, empirical and practical contributions. It offers a theoretical contribution to the field of organisation studies as well as work and employment studies by illustrating the relevance of organisational structures in relation to the (employee) quality of working life. It

specifically lays out the building blocks for an understanding of organisational designs that can be used as part of the NSSL concept. In doing so, this dissertation shows that acknowledging the importance of organisational structures is also essential for the health and nursing field, since it leads to a better understanding of the quality of working life of care workers in NSSL. By combining the insights derived from health and nursing studies, organisation studies, and work and employment studies, this dissertation also responds to recent calls for an interdisciplinary research focus on how quality of working life can be improved (Grote & Guest, 2016). Finally, this dissertation also aims to show the advantages of including an understanding of organisational designs when researching the concept of NSSL.

Empirically, this dissertation unveils the complex network of factors that influence the quality of working life of employees when a concept on how to give care is introduced into an organisation. More specifically, it sheds light on factors affecting the quality of working life of care workers in nursing homes and the precise processes behind it. The multi-staged research design, moreover, made it possible to detect pitfalls care workers working within the NSSL concept face, and to subsequently explain how organisation studies and work and employment studies offer building blocks to improve the quality of working life of care workers. This dissertation aims to comprehensively explore in what ways the concept of NSSL contributes to an improved quality of working life in the nursing home sector.

Practically, this dissertation shows in what ways nursing home managers can increase the quality of working life of care workers. Nursing homes that have introduced the concept of NSSL are on the right path towards increasing the quality of working life, but more action is needed in order to mitigate the quality of working life pitfalls that care workers face. A start could be to publicise the norms that show how to organise NSSL in nursing homes. The research chapters show that there are several factors at play in organisations that influence the quality of working life of care workers. Organisations that aim to improve the quality of working life of their care workers should concentrate on these factors. It is argued, in this dissertation, that the NSSL concept has not yet taken into account the crucial organisational factors that highly influence the quality of working life of care workers.

This dissertation is structured as follows. The second chapter discusses the theoretical framework and further explains the definitions of quality of working life and normalised small-scale living. The outline of the research chapters and in what way they are connected is also summarised here. Subsequently, there is an outline of the methods and study design used in this dissertation as well as the particular methods used in the ensuing five research chapters. Then, those five research chapters are presented. Lastly, a concluding chapter provides a brief summary as well as recommendations for further research and policy interventions.

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CHAPTER 2. THEORETICAL FRAMEWORK

This chapter clarifies the overarching theoretical framework of this PhD dissertation. Its objectives are to describe how the research papers (Chapters 4-8) are theoretically connected, and to give an overview of the overarching theory used in this paper. Importantly, it was impossible to avoid some degree of repetition both in this chapter as well as in the ensuing research chapters, since each research chapter is designed in such a way that it can be read as an independent paper. More information on the theoretical framework and methods is offered in each individual paper.

In the current chapter, the wider context in which nursing homes operate as well as contingent future changes are outlined. Following a definition of quality of working life issues in nursing homes, the concept of 'normalised small-scale living' is examined. It is argued that this concept does not include a notion of organisational designs. Such a notion, however, is crucial in order to understand the quality of working life of care workers. Lastly, the structure of the thesis is mapped with an overview that explains what each chapter contributes to the overall research objective – to improve the quality of working life of care workers in nursing homes.

2.1 Changes in the organisational context of nursing homes

The organisational context of nursing homes is changing rapidly. This section briefly outlines both the current landscape of the nursing home sector and its expected future changes. Examples of the Flemish care situation are used to make these expected developments more concrete. It is argued here that the expected changes will create the need for a higher quality of working life for care workers. This impact is explained in section 2.2.5, after the meaning of quality of working life in the nursing home sector has been discussed.

2.1.1 Higher care demands: quantitatively and qualitatively

Care needs in Western countries are increasing both quantitatively and qualitatively (e.g. Comas-Herrera et al., 2007; Pacolet et al., 2014; Pacolet & De Coninck, 2015; Szweda-Lewandowska, 2011). Quantitatively, the need for beds in nursing homes in Western countries has increased significantly over the past decades. Projections show that the next few decades will see a continuing rise in care needs across Western countries such as Poland (Szweda-Lewandowska, 2011) and England (Comas-Herrera et al., 2007), and regions such as Flanders (Pacolet & De Coninck, 2015). This higher demand is illustrated with projections of the total number of residents in Flemish nursing homes. This number will rise from 65.197 residents in 2011 to 202.815 residents in 2060 (Pacolet & De Coninck, 2015). Van den

Bosch et al. (2011) researched the increase in the number of beds for nursing homes and homes for the elderly. They developed more detailed scenarios, which paid attention to the evolution of resident morbidity, functional limitations and availability of informal care workers. They found that in order to meet the demand, the number of beds has to increase with 27.000 to 45.000 beds between 2011 and 2025. This is an increase of 1.800 to 3.500 beds per year. Between 2000 and 2011 there was on average an increase of 790 beds per year. What is important is that this number had already increased over the past decades, as is shown by the number of beds in nursing homes for residents with high care needs accredited by the Flemish government. The number of beds increased from 17.918 to 44.572 between 1999 and 2016 (Agentschap Zorg & Gezondheid, 2016a).

Qualitatively, higher care needs and an increased demand for person-centred care are projected. First, future residents of nursing homes will have more complicated health issues (Comas-Herrera et al., 2007), together with mental and physical health problems. The number of residents in nursing homes with dementia in Europe is, for instance, expected to increase with 87 per cent, from 9.95 million in 2010 to 18.65 million in 2050 (Prince et al., 2013). Such a sharp rise in care needs has also been predicted to take place in Flanders. Pacolet and De Coninck (2015) show that the number of residents with low care needs has dropped from 36 per cent of the total resident population to 26.9 per cent between 2000 and 2012. This number will continue to decrease, since a growing number of seniors will be cared for at home (Pacolet & De Coninck, 2015) for as long as their health conditions allow this. This is illustrated by a study by Houttekier and colleagues (2011) that estimated that the number of residents dying in nursing homes in Belgium would double between 2007 and 2040. Life in a nursing home is thus increasingly becoming the ultimate stage in someone's life, which also comes with the highest possible care needs. This change will cause future residents to impart a higher care burden to caregivers in nursing homes than those of the current resident population.

In addition, the resident population is also expected to become more demanding. These higher demands flow from the fact that a more diverse resident population is entering nursing homes (e.g. Gabrielson, 2011). The number of openly LGB residents (Fokkema, 2012) and residents with a migrant background (Alfarah et al., 2012) is, for instance, expected to rise in Western countries in the next few decades. Consider the increased percentages of seniors aged 64 or older in Flanders who do not have Belgian nationality; these percentages rose from 2.4 to 4.4 per cent between 2000 and 2016 (Statistics Belgium, 2016). This number will continue to rise over the next few years (Lodewijckx, 2007), potentially leading to a higher number of residents with a migrant background. These examples show that nursing homes are facing increased care demands, which are to a greater extent the result of a changed and still changing demographics in Western societies.

It has been argued that future residents will both have higher expectations and request more person-centred care than the current nursing home population (Gould, 2007; Leventhal, 2008). Tomorrow's residents are expected to oppose the institutionalised and standardised ways in which elderly care is

currently organised in Western society if these come into conflict with their own care expectations (Brune, 2011). They will have higher expectations concerning the quality of care (Gould, 2007) and in what ways residents' lives in the facilities are structured (Brune, 2011). Until now the idea of care and life equality for patients was rooted in most care institutions of continental market economies. In that sense, residents within the same nursing home receive a similar form of care. While this appears to foster a good quality of care (since everyone deserves good care), this equality becomes more problematic when applied to quality of life, because it could lead to uniform living conditions in the last stages of life that stand in contrast to the individual life choices residents were previously able to make. Future residents are expected to increasingly demand more homelike and personal living environments, where they will have significant decision authority and will be more involved in the caregiving process (e.g. Brune, 2011).

Several examples of questions from individual residents can be offered to demonstrate their higher expectations. For instance: Can an artsy granddad buy his own clay to do pottery with his grandchildren in his room? Can an emeritus university professor have access to the internet in order to read her previously published articles? Can a resident have a double bed if his partner still lives at home? Or, consider this slightly more controversial example: Can a resident be allowed to grow his own weed? Examples can also refer to the basic living elements: Can a resident choose when to wake up in the morning, or is the hour when he wakes up based on where the room is located in the living unit? Does a care worker know the resident well enough to have a daily talk about shared interests? Can a resident who does not like mashed potatoes have rice? Most of these questions will be difficult for nursing homes to comply with, especially because they presume a level of homeliness and individualisation that is not possible under the current standardised care approach. The likelihood that expectations of residents will increase relates to Brune's plea (2011, p. 521) to move from conventional caregiving to resident-oriented care in nursing homes: '*We [Western societies] 've created an environment that breeds loneliness, isolation and depression. This is harsh language, but it reflects the truth.'*

Nursing homes that do not meet higher expectations of residents will face their opposition or that of their relatives (Leventhal, 2008). More specificially, nursing homes that refuse to meet such demands will struggle to fill their beds. Quality of care reports on nursing homes have already been made publicly accessible in several countries (Rodrigues et al., 2014; Werner et al., 2012), and residents or their relatives will probably increasingly consult these reports in order to choose a nursing home that meets their demands. Residents or their relatives could also invent alternative modes of organisation, which would provide them residential care. This could make institutional care redundant or at least difficult to organise. Residents or their relatives could, for instance, set up cooperative care associations (Levitin-Reid et al., 2009) or hire private care workers that could carry out daily residential care needs (Theobald, 2003, p. 175). This is reflected in Robison et al.'s statement (2014): '*Baby Boomers are open to more*

housing options than older adults in general, (…) this difference may reflect a true cohort difference between generations.'

It could be argued that nursing homes may not be able to compete with these emerging care models in the labour market. Wealthy residents or cooperative care associations could pay higher wages to receive person-centred care, potentially taking out the semi-public sector. It should, however, be noted that in Belgium the number of seniors at risk of poverty has decreased, making it more plausible for a higher numbers of seniors to have sufficient means to afford qualitative care. In Belgium, for example, the percentage of seniors aged 65 or over that are at risk of poverty decreased with 4.2 per cent between 2010 and 2015 (Steunpunt tot bestrijding van armoede, bestaansonzekerheid en sociale uitsluiting, 2016). Higher wages in abovementioned emerging care models could attract more competent care workers to these models and thereby cause a high turnover in institutionalized nursing homes. This is a growing concern in the context of increasing labour shortages in the care sector (see the next section), since it could lead to an insufficient number of care workers and consequently a lower care quality in institutionalised nursing homes.

2.1.2 Higher labour shortages: quantitative supply of care workers

In the coming years, a shortage of care workers is expected (Hussain et al., 2012; Spetz et al., 2015) and this is especially true of the nursing home sector (e.g. Pacolet et al., 2014). Labour shortages are predicted in Western countries such as the United States (Spetz et al., 2015), the United Kingdom (Hussein et al., 2005), and the Netherlands (Actiz, 2017). As explained in the introduction to this dissertation, an increasing demand for beds together with a continuing decline of the working-age population are the main drivers behind the predicted labour shortages. After a brief discussion on the increased demand for beds, the predicted labour shortages are explained in more detail below.

Future labour shortages in the nursing home sector are illustrated with examples coming from the Flemish care situation. By 2034, this sector will be the largest care sector in Flanders (Pacolet et al., 2014), replacing what has until now been the largest care sector, the hospital sector (Pacolet et al., 2014). Between 2015 and 2059, the number of health professionals in the Flemish nursing home sector will multiply by a factor of 2.43. In 2015 46.713 care workers were employed in Flemish nursing homes (Agentschap Zorg & Gezondheid, 2016b); this number will have increased up to 113.592 care workers by 2059 (Pacolet et al., 2014).

This increase is problematic for two main reasons. First, it was already challenging for managers to find nurses and care assistants to fill care job vacancies in 2016 (Vlaamse Dienst voor Arbeidsbemiddeling, 2017). The demand for nurses will even further increase up to 13.339 FTE between 2055 and 2059, from 4.716 FTE between 2010 and 2014 (Pacolet et al., 2014). The demand for care assistants will rise up to 46.789 FTE between 2055 and 2059, from 16.872 FTE between 2010 and 2014 (Pacolet et al., 2014).

Most notably, almost half of all care assistant jobs will be in the nursing home sector in the period between 2055 and 2059 (Pacolet et al., 2014). Second, demographic projections point towards labour shortages due to a shrinking working-age population. This is exemplified by a slight decrease (-2.3%) in the number of individuals aged 15 to 65 years in Flanders between 2014 and 2030, and the increasing number of seniors aged 85 and over (+43.2%) (Vandresse et al., 2015). It is expected that these demographic transitions will lead to growing labour shortages in the Flemish labour market (Van Hootegem, 2016), causing a decreasing number of working-age individuals to take care of an increasing number of elderly citizens.

Finding employees willing to work as nurses or care assistants in nursing homes is already a veritable challenge due to existing labour shortages. Projections for the next decades have shown that these labour shortages will only become more prevalent. Often it is argued that labour shortages in the sector will disappear when home care organisations look after residents with low care needs (e.g. Spetz et al., 2015). Projections of Pacolet et al. (2014), however, show that high labour shortages in the Flemish care situation will persist even in this scenario. The demand for nurses in the nursing home sector will namely still increase with 155 per cent in the periods 2010-2014 to 2055-2059, when residents with low care profiles will be taken care of by home care organisations (Pacolet et al., 2014). Policies that are simply focused on transferring residents with low care needs from nursing homes to home care organisations will thus only partially resolve the projected labour shortages.

To conclude, the organisational context of nursing homes will become more demanding. The need for beds in nursing homes is increasing (i.e. quantitative change in context), and residents will have more complex care demands and care expectations (i.e. qualitative change in context). These projected higher demands will be accompanied by increased labour shortages in the sector. An increased quality of working life in the sector is needed to respond to the likely higher qualitative and quantitative demands of future jobs, and to partly resolve the predicted labour shortages. A higher quality of working life could also make it possible to attract new care workers to the sector, to retain experienced care workers, and to convince care workers who have left the sector to return (Hussain et al., 2012; Yamaguchi et al., 2016). This last argument is illustrated with the finding that 18 per cent of the total number of educated nurses in the US do not work in a care profession (Hussain et al., 2012). In 2012 7.5 per cent of the employees with a permanent contract left the Flemish nursing home they worked in. Albertijn and Devrieze (2009) showed that only 30 per cent of the care workers who left the sector returned. This argument also echoes what Hussain et al. posed (2012, p. 44) when they note that '*improving the work environment [i.e. quality of working life] is a key step in efforts to retain nurses [and other care workers] and improve the quality of the health-care institution.*' The changing organisational contexts in the nursing home sector call therefore for studies on the quality of working life in nursing homes.

In addition, a higher quality of working life will make it possible to achieve an increased quality of care in nursing homes (Bishop et al., 2008; Burns et al., 2016). Care workers with jobs that have a high

quality of working life will feel more committed to the organisation and its residents (Bishop et al., 2008). They will be more motivated to provide good care (Van den Berg et al., 2006) and will be more inclined to work in an innovative manner (De Spiegelaere, 2014). The next section defines quality of working life and relates it to organisational and employee outcomes. The quality of care workers' jobs in nursing homes is also discussed.

2.2 Quality of working life

2.2.1 A general definition of quality of working life

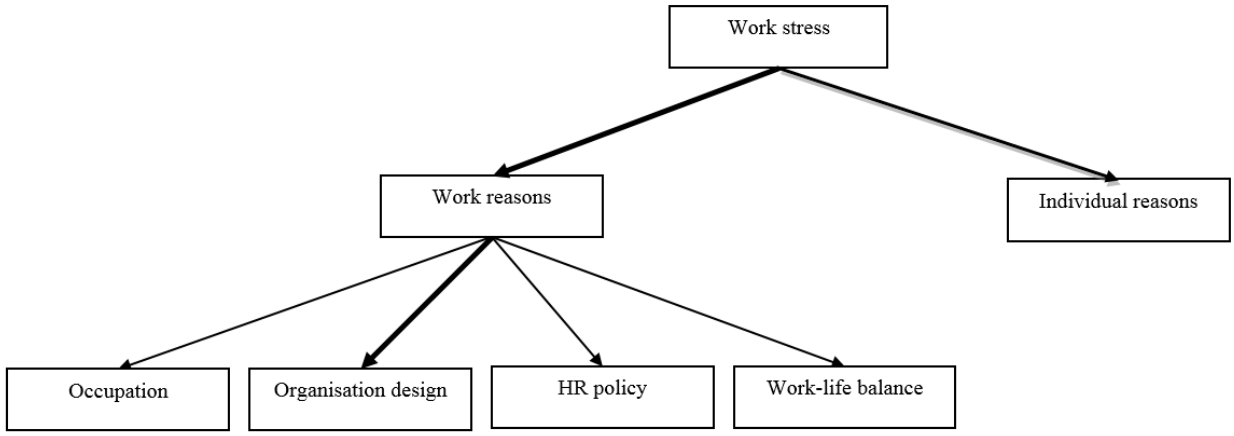
The quality of working life in the Low Countries is defined by its dimensions 'job content', 'industrial relations', 'employment conditions', and 'physical working conditions' (Van Hootegem, Huys and Maes, 2014). In Dutch, these are termed the 4 A's of quality of working life: 'Arbeidsinhoud', 'Arbeidsvoorwaarden', 'Arbeidsomstandigheden', and 'Arbeidsverhoudingen'. Employment conditions are the arrangements made on the terms and requirements under which labour is conducted (Van Hootegem, Huys and Maes, 2014). These include amongst others wage, annual leave regulation, and training possibilities. Industrial relations refer to the negotiations between employees and employers, and whether employees have a voice in topics related to the other quality of working life dimensions (Van Hootegem, Huys and Maes, 2014). An example of this is to see whether there are negotiations between trade unions and employer representatives at work. Physical working conditions are the physical conditions in which employees have to perform their tasks. These include the temperature, noise and polluted air in their place of work. Job content, in turn, refers to the nature of tasks of a job, and how these tasks need to be conducted. Examples of this are job complexity and job autonomy. It has been argued that work issues in each of these dimensions lead to negative work and health outcomes for employees and their organisation (Van Hootegem, Huys and Maes, 2014).

In this dissertation, quality of working life is defined in line with the job demands-control(-support) model, which is a model of job content. Quality of working life is therefore focussed on job content. The job demand-control(-support) model emphasises the importance of finding the right balance between job demands, job control and social support present in a job (Johnson & Hall, 1988; Karasek, 1979; see also section 2.2.3). Job demands are the psychological stressors involved in fulfilling a workload (Karasek, 1979) and include both quantitative job demands (i.e. related to the number of tasks within a specific time period) and qualitative job demands (pertaining to the variation of tasks rather than the number of tasks) (Bakker & Demerouti, 2007; Karasek, 1979; Schaufeli et al., 2009). Job control both entails the degree of authority employees have over work-related tasks and how they use this authority in their job (De Croon et al., 2000; Karasek, 1979; Wall et al., 1996). This authority relates to how important the voice of employees is in the decision-making processes (Karasek & Theorell,

1990) with regard to working time, work pace and work methods (Breaugh, 1985). Social support refers to the (1) feedback of colleagues and supervisors, (2) feelings of loneliness in the workplace, and (3) the helpfulness of colleagues when it comes to performing tasks (Johnson & Hall, 1988; Landsbergis, 1988).

This dissertation not only focuses on job content because of its proven impact on the health and work outcomes of employees in healthcare (e.g. Dhaini et al., 2016; Schmidt & Diestel, 2011; Van den Berg, 2006; Weigl et al., 2016), but also because improving job content is considered to be an effective HR-practice to retain employees in organisations, even though it is often overlooked by managers (De Vos & Meganck, 2008). In contrast to other practices, such as increasing wages, it is noted that improving job content has a long-term impact on employees' performance and their intention to remain employed in the organisation (Pfeffer, 1998). In addition, a focus on job content can offer potentially helpful organisational design insights to address pressing issues in the job content of employees (De Sitter, 1981). This is exemplified with the study of Christis et al. (2013), which outlines that work stress in care is explained by individual and work reasons (see Figure 1). From a work perspective there are four main reasons that could lead to work stress: occupational, organisational design, HR policy and work-life balance reasons (Christis et al., 2013). Occupational reasons are specific work stressors, which are inherent to the job (e.g. dealing with dying seniors in nursing home jobs). Organisational design reasons refer to the way in which the division of work influences job demands, job control and social support. HR policy can be a stressor in cases where employees work for an unsatisfactory wage or are not receiving a promised permanent work contract. Work-life balance is also important, especially when the working part disrupts the balance by intruding on the personal time of employees. This dissertation focuses on the organisational design component, which explains work stress, and therefore also focuses on the individual impact of job content on work and health outcomes. It, however, does not argue that organisation policies on other aspects of the quality of working life of care workers are not important in helping reduce work stress and making care jobs more attractive to potential employees.

Figure 1: Work stress and organisational design



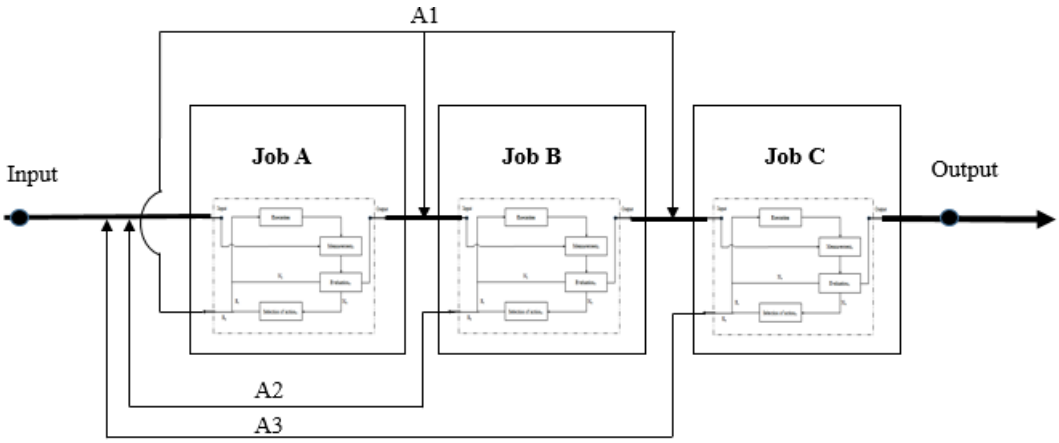
Source: own illustration based on Christis et al., 2013, p. 21.

2.2.2 The sociotechnical control circle: a specific definition of quality of working life

While many studies have examined the impact of job demands, job control and social support on the health and work outcomes of employees (see section 1.2.4), it is studies in the sociotechnical field that clarify the often-overlooked causes in what ways quality of working life is shaped within organisations. This is evident from the publications by De Sitter (1981; 1998), Kuipers et al. (2010) and Delarue (2009) that integrated the job demands-control(-support) model with the control circle of Modern Sociotechnical Theory. The control circle is based on cybernetic theories that use wiring diagrams as visual representations of electrical circuits. In this case, it shows how the execution of tasks and control over these tasks is related to production and service (i.e. order) processes within organisations. It is applicable across employment sectors.

The control circle can be discussed at the job, intra-organisational, and supra-organisational level. Here the control circle is discussed at the job level (see also Figures 2 and 3), since that enables it to integrate with the job demands-control(-support) model. It is, however, important to comprehend that jobs are interrelated and should not be seen as individual islands. Figure 2 illustrates how three jobs transform an input into an output together. When there is no deviation in the order process, an input is here transformed by Job A, Job B and Job C (in this sequence). When there is deviation and feedback from other jobs needed to resolve deviation, feedback can be asked from these jobs or the order itself can be moved (see arrows A1, A2, and A3).

Figure 2: The control circle, a network of jobs



Legend: for simplicity reasons, it was opted to not draw an arrow from Job B to Job C, or from Job C to job A.

The dotted square in Figure 3 illustrates how tasks are executed in one job, which is located within such a network of jobs. These other jobs are shown in Figure 2, the arrows in Figure 3 depart from or extend to these other jobs. The following is a description of the four steps of the control circle in a job. It is only in step four that work tasks, which are assigned to jobs, are performed. The manner in which the control circle is integrated with the job demands-control(-support) model is then subsequently discussed.

Measuring input and temporary output. The first step registers the material and informative input on who or what arrives at the workplace. It also registers the temporary output when a task has been executed (in step 4). The registered aspects of both the input and temporary output are dependent on certain norms (these are signified with the letter 'N' in Figure 3), which could have been developed in other jobs. A norm is based on expectations regarding the way the input needs to look or what it needs to consist of (1) when arriving in a job, and (2) after transformation (the temporary output) before it continues to the next job in the order process. An order could be subject to one or several norms, and the norms can differ across employment sectors, organisations, and jobs. By way of illustration, in most cases care assistants in a nursing home standards on how to wash residents. The norms are here the differing standards for a proper washing. Importantly, only the necessary information to evaluate these standards are registered. It is examined in step two whether an input deviates from or is conform to the norm(s).

Evaluation of input and temporary output. In the second step, the collected information of step one is examined. The input or temporary output is thus compared to the norm(s) and it is judged on whether it deviates from (this is signified with the letter 'N_d' in Figure 3) or conforms to the norm(s) (this is signified with the letter 'N_c' in Figure 3). Norms are thus not only used to collect information on the input and temporary output of a task, but also to evaluate plausible deviation from the norm(s). The final

evaluation is based on the assessment of one or several aspects of collected information on the input (e.g. quality of care, financial costs, time for residents).

Selection of action. In the third step, an action is selected to make a deviating input or temporary output conform to the norm(s). In other words, if the input or temporary output after evaluation is (still) deviating from the norm(s), actions are needed to make it conform to the norm(s). To use the outlined example of a proper washing, care assistants will have to perform an action in order to wash conform to given standards. It is possible to make the input or output conform to the norm in two distinct ways. First, individual jobs may offer leeway to deal with deviations, without contact with other jobs in or outside the organisation. Authors, inspired by MST, argue that leeway is shaped structurally within jobs, meaning that the way tasks are divided between jobs is what creates possibilities for individual jobs to deal with deviation. In MST this structurally created leeway is termed 'internal regulation capacity' (this is signified with the letter 'R_i' in Figure 3). Second, jobs may also have to interact with other jobs in order to resolve deviation. Individual jobs are, in this case, not shaped to adapt the input or temporary output themselves, but the structure of the organisation does guarantee that employees in (different) jobs interact with each other in order to resolve the deviation. In MST this structurally shaped social interaction is termed 'external regulation capacity' (this is signified with the letter 'R_e' in Figure 3).

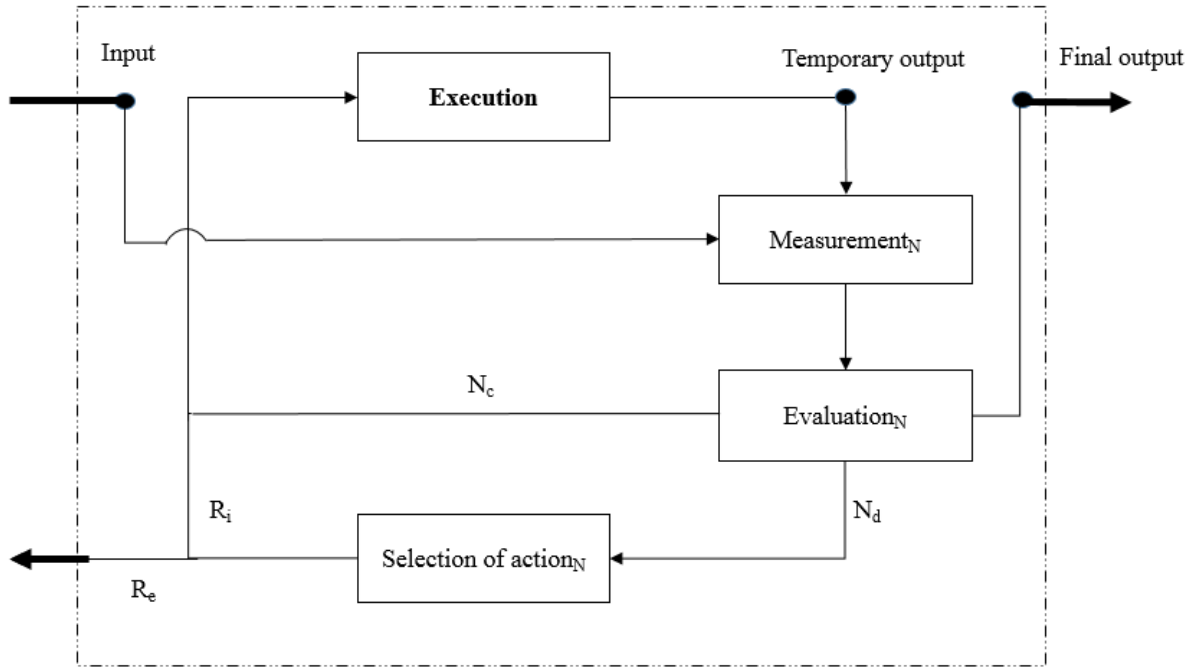
It is important to note here that (1) norms can be adapted or created by using internal or external regulation capacity in such a way that specific deviations are less often examined than future deviations and (2) there may also be conscious deviation. The former is exemplified by the norm that breakfasts always need to include sugar cubes when coffee is served. This norm can be adapted by a new norm where residents request when they want to have sugar with their coffee. In that case there is no deviation from the norm if there is no sugar included in the breakfast for a resident. In jobs with high internal regulation capacity, employees themselves may adjust or create norms. In jobs with high external regulation capacity, employees can easily adjust or create norms by requesting support from other staff members. They can request support from people within their own team, organisation but also people that are external to the organisation. When (several) lines have to be crossed (e.g. physically, hierarchically or organisationally) in order to adapt to the norm(s), it will become more difficult to adapt to said norm(s) in practice. The latter refers to the fact that an action could also be to purposively not act in order to make the order conform to the norm. Internal or external regulation capacity will then be used to deviate from the norms. This is exemplified with pure resistance to the outlined norms.

Execution of tasks. In the fourth step, the input or the temporary output (once again) is transformed. This can be done after an evaluation has confirmed whether the input conforms to the norm(s) (see step 2), or after action has been taken to make the input or temporary output conform to the norm(s) (see step 3). In this step the main tasks, which are assigned to the job, are performed. To use the example of care workers washing a resident, it is here that the washing activities take place. There is another measurement and evaluation once the transformation has taken place. This means that the process starts

again with step 1 of the control circle. If after the transformation, it is determined that the temporary output, after measurement and evaluation, conforms to the norm(s) (e.g. the standards on how to wash residents are met), it is sent to the next job in the production or service process. In that case, the control circle of this specific job will therefore come to an end (i.e. final output). A successfully executed task can thus include deviation in the input, but final output needs to meet the norm(s) when passed on to the next job in the order process. If after the transformation, it is determined that the temporary output does not conform to the norm(s), then action is needed to make that happen (see step 3). When it deviates from the norm(s), an action will be selected to make it conform to the norm(s). The selection of an action will, as has been explained, depend on the amount of internal and external regulation capacity assigned to a job.

MST integrates the quality of working life dimensions 'job demands', 'job control' and 'social support' into the control circle (De Sitter, 1981; 1998). First, the execution of tasks and especially deviations from norms are related to job demands. An example of the latter is the case of a resident who sings out loud in the common living unit during breakfast, agitating the other residents (see also Chapter 8). Care workers will face increased job complexity (sub-dimension of job demands, see Figure 4) because they simultaneously have to provide breakfast and maintain peace and order. Second, internal and external regulation capacity are connected to job control and social support respectively. Job control is related to internal regulation capacity since it explains how structurally designed decision authority in a job offers employees the possibility to address deviation in the workplace. Social support is linked to external regulation capacity since it creates the structural conditions that increase the probability of peer and supervisory support. As discussed, this support from individuals in other jobs is needed to manage deviation in the workplace, irrespective of employee and job characteristics. This dissertation chooses to use the terms job demands, job control, and social support instead of modern sociotechnical terms such as deviation, and internal and external regulation capacity. These first three terms are, after all, more commonly used in the field of organisation studies. This dissertation explicitly studies the impact of the organisational design on individual jobs.

Figure 3: The control circle, quality of working life as defined in modern sociotechnical theory



Legend: N (in subscript) significies norms; N_c signifies 'norm conformity'; N_d signifies 'norm deviation'; R_e signifies 'external regulation capacity'; R_i signifies 'internal regulation capacity'

Source: own illustration based on De Sitter, 1981, p. 116; De Sitter, 1998, p. 19; Kuipers et al., 2010, p. 84-86

Having discussed how low or high job demands, job control and social support are shaped within organisations, this paragraph addresses the ways in which MST modifies the understanding of the job demands-control(-support) model (De Sitter, 1998; Delarue, 2009; Dhondt et al., 1998; Kuipers et al., 2010; Van Hootegem et al., 2014; Vermeerbergen et al., 2017). Quality of working life is, after all, defined in accordance with modern sociotechnical studies in this dissertation. The model is adapted in two ways.

First, MST argues that job demands, job control and social support have many sub-dimensions, seen that jobs are located in and within different production and service flows. Different norms, consequently, apply to each particular job, which results in different forms of deviation. This can be illustrated by the fact that a resident singing during breakfast could - as discussed - lead to deviation in nursing jobs in nursing homes with large living units, while this may not be the case for nurses who take care of patients who eat in their single rooms in hospitals (where they do not disrupt other patients with their singing talent). Because of different consequences caused by (the same) deviation that result in high job demands, there are also different internal and external regulation capacities needed to address this deviation. Employees need to have the opportunity to choose their own work methods to deal with deviation in certain situations, while discretion or the pace of work is important in other cases.

Despite the variety in job demands, job control and social support, MST has only defined the sub-dimensions of these concepts sparingly. MST details few sub-dimensions. These are only job content characteristics, and not physical working conditions or employment characteristics, such as sub-dimensions of job demands, job control and social support. This is in line with the original job demands-control(-support) model, but it stands in contrast with, for instance, studies in organisation and work psychology that extend the model to include the physical working aspects of the job (e.g. Bakker & Demerouti, 2007) as well as aspects related to employment conditions (e.g. Demerouti, 2001). The rationale behind only outlining job content characteristics is that the division of tasks in organisations not only creates deviation but also structurally shapes opportunities to deal with deviation (De Sitter, 1981; Van Hootegem, 2000; Vermeerbergen et al., 2016). Both deviation and the opportunities to address them have a large impact on job content, irrespective of the physical and employment characteristics of workers.

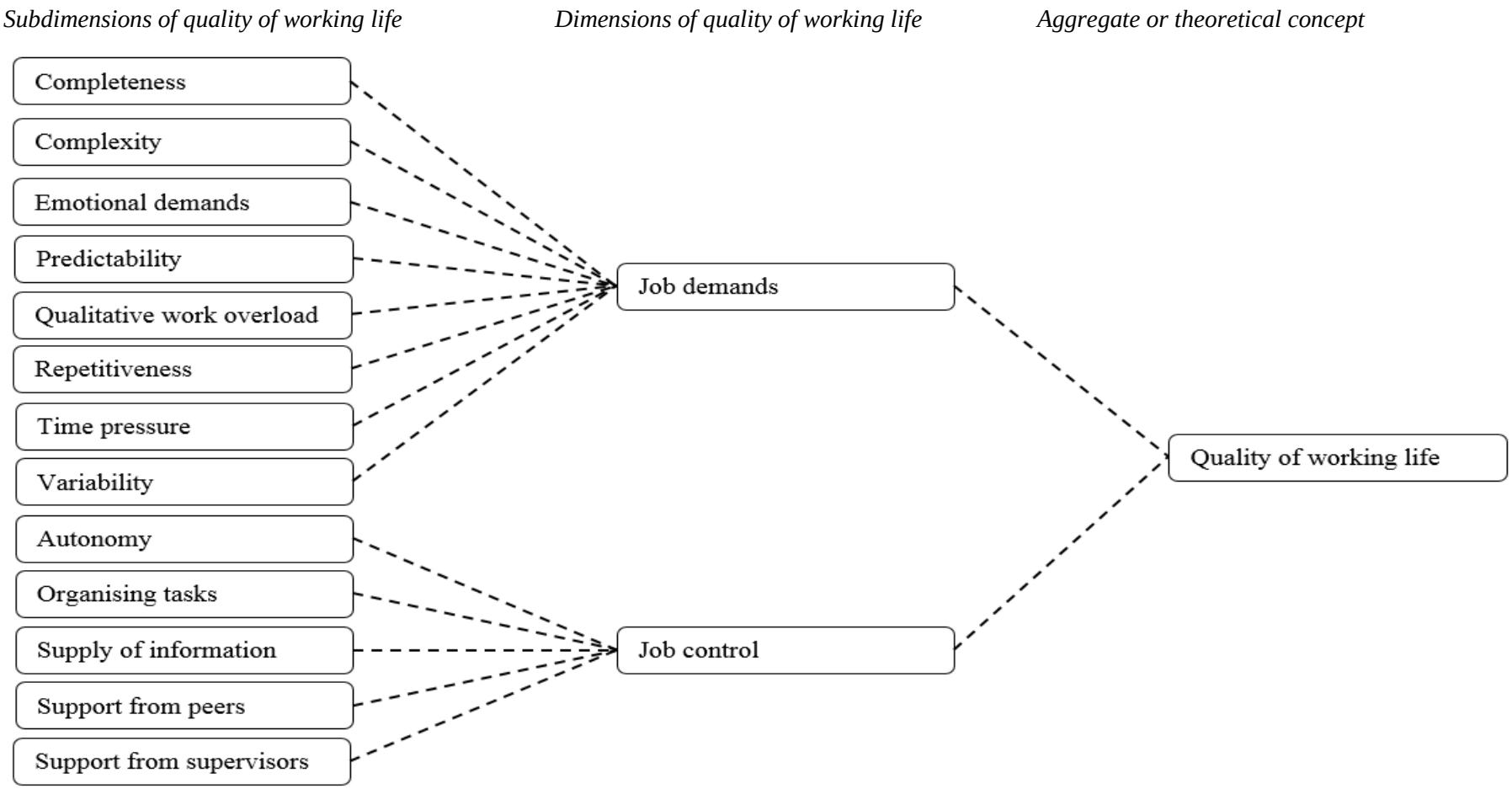
Second, initially Karasek (1979) only regarded job demands and job control as dimensions of quality of working life. Johnson and Hall (1988) added social support as a separate dimension within this model. As discussed, sociotechnical theory views both job control and social support as ways in which employees can deal with deviation. Although De Sitter (1998) differentiates between external and internal regulation capacity, modern sociotechnical studies, however, often do not differentiate between job control and social support (e.g. Van Hootegem et al., 2014). In this case job control and social support constitute just one dimension, termed 'job control', which refers to the opportunity that allows for dealing with deviation. Sociotechnici see social support and job control as the same dimension. That is a consequence of the fact that sociotechnical theory integrates the job-demand-control model into a theory on processes and services within organisations. Karasek and colleagues only examined the job level, without making reference to the organisation as a whole in which jobs are embedded. The sociotechnical view on job control and social support is in line with the parsimony principle and Ashby's Law of Requisite Variety. This law poses that organisations need to reduce organisational complexity as much as possible before designing effective control mechanisms (cf. Van Eijnatten, 1993: 58-66; Benders et al., 2000).

Research chapters in this dissertation use MST to define quality of working life, but in two chapters (see Chapter 4 and 8) it was opted to differentiate between job control and social support, as was done in early modern sociotechnical studies, for theoretical and practical reasons (De Sitter, 1981; 1998). Theoretically, past research suggested that there were specific working life issues within the external regulation capacity of care workers (De Rooij et al., 2012). In the research chapters a differentiation between the internal and external regulation capacity makes it easier to relate quality of working life issues to one of these dimensions, suggest solutions for these issues, and relate these issues to insights from organisational design studies. It makes it thus easier to zoom in on these working life issues. Practically, in the disciplines of the journals in which the research chapters have been published in or

where the chapters are destined for publication, job control and social support are defined as two separate quality of working life dimensions. By using social support as a separate quality of working life dimension, we are also able to contribute to the specific disciplines. The word count constraints of a journal article do not allow for elabouration on the reasons why job control and social support were treated as the same quality of working life dimensions.

More concretely, the manner in which MST defines quality of working life can be found in recent literature (Van Hootegem et al., 2014; Vermeerbergen et al., 2017), which defines different sub-dimensions of job demands, job control and social support. In this dissertation, job demands comprise the sub-dimensions, completeness, complexity, emotional demands, predictability, qualitative work overload, repetitiveness, time pressure, and variability. Job control consists of the sub-dimensions job autonomy, organising tasks, supply of information, support from peers, and support from supervisors. It is the collective, rather than the independent impact of these sub-dimensions of job demands, job control and social support on work and health outcomes, which is stressed in this dissertation. Figure 4 visualises how MST defines quality of working life. Appendix 2 of this dissertation offers a definition for each of the underlying sub-dimensions of job demands and job control.

Figure 4: Quality of working life as defined in the field of organisational design studies



Legend: job control and social support were not defined as two different dimensions of quality of working life in this figure, as MST defines both as capabilities to deal with deviation.

Source: own illustration, based on Van Hootegem et al. (2014), and Vermeerbergen et al. (2017).

2.2.3 Health and work outcomes of a low quality of working life

The following describes in greater detail the consequences of having low or high scores in job demands and job control (defined here in line with the MST tradition of job control and social support). Essential here is that the combined impact rather than the individual impact of job demands and job control on employee outcomes is emphasised (Karasek & Theorell, 1990). This collective impact is graphically shown in Figure 5, which distinguishes between four job quadrants (Karasek et al., 1998) related to job demands and job control. Jobs in these four quadrants are termed passive jobs, low-strain jobs, active jobs and high-strain jobs. Passive jobs combine low job demands and low job control. Low-strain jobs are characterised by low job demands and high job control. In active jobs, employees experience high job demands and high job control. High-strain jobs combine high job demands and low job control.

The different job quadrants are linked to the health and work outcomes of employees; these links are visualised in Figure 5. Previous studies have connected the job quadrants to risks of employees experiencing physical and psychological health problems (Clays et al., 2007; Lindeberg et al., 2011, Van Laethem et al., 2013; Pisanti et al., 2016). Vanroelen et al. (2009), for instance, note that job demands and job control are highly related to persistent fatigue, musculoskeletal complaints and emotional well-being. Others studies have related the job quadrants to the risks of developing cardiovascular health problems (Kivimäki et al., 2012), high blood pressure (Clays et al., 2007), and exhaustion (Lindeberg et al., 2011).

Karasek and Theorell (1990) and Cooper et al. (1997) underline that the stress levels of employees mediate the relation between employee health outcomes, job demands and job control. An imbalance between high job demands and low job control increases stress risks in employees, which in itself leads to an increased risk of developing physical and psychological health problems (Johnson & Hall, 1988; Karasek & Theorell, 1990). Crucial to note is that high job control in demanding jobs reduces stress risks in employees (Johnson & Hall, 1988) as well as related risks of developing physical and psychological health problems. High job control thus offers employees the ability to handle demands in jobs that would otherwise cause them high levels of stress. Essentially, high job control can significantly reduce the stress risks of demanding jobs (i.e. active job quadrant).

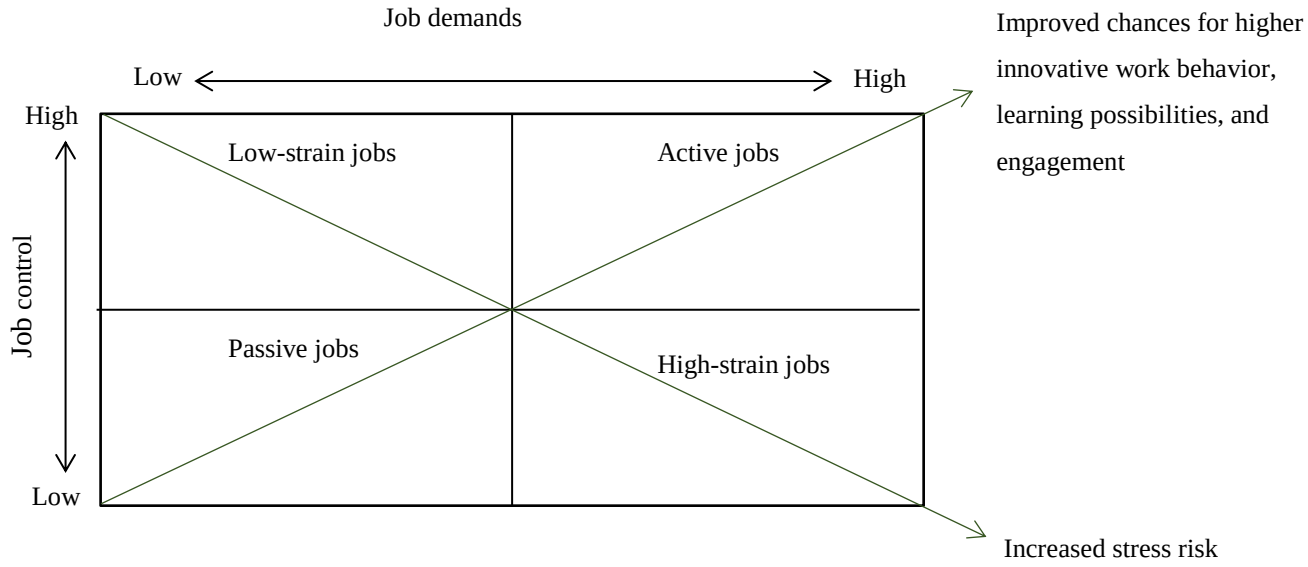
This dissertation does not argue that organisations simply need to avoid jobs that make workers sick because of exposure to high strain situations (e.g. the high-strain quadrant). The other three job quadrants are, after all, not as important. This dissertation especially aims to encourage practitioners to realise jobs in the active quadrant since these offer more learning opportunities (Karasek, 1979; Vanroelen et al., 2009; Van Ruysseveldt et al., 2011) and employees in these jobs show the most innovative work behaviour (De Spiegelaere, 2014) and work engagement (Bakker et al., 2007). High demands together with high job control can after all be challenging to many employees (De Lange et al., 2009), and they enhance employee outcomes as well. It is argued here that the aim should be to have more active jobs

and to simultaneously decrease the number of high-strain jobs. Jobs will then not only pose a lower risk of causing physical and mental health problems but also increase the odds for employees to improve their innovative work behaviour and engagement. This statement is consistent with MST (De Sitter, 1998), which argues that jobs need to have sufficient regulatory capacities to deal with deviations in the work processes. In the absence of such capacity employees experience higher levels of stress and show higher alienation risks (De Sitter, 1998), which results in a lower quality of working life.

Importantly, employees in active jobs should have the possibility to recover from work-induced demands; the job demands should therefore not be excessive (De Lange et al., 2009). When job demands are too high and exceed a certain threshold, high job control will not be able to buffer those job demands and will therefore still lead to high stress levels and related negative health and work outcomes.

In the section that follows, it is argued that care workers in nursing homes generally face excessive job demands and insufficient job control. This is especially an issue when looking at the above-described expected changes to the organisational contexts of nursing homes.

Figure 5: Graphical depiction of the job demands-control model



Source: own illustration, based on Karasek & Theorell (1990).

2.2.4 Quality of working life in nursing homes

Empirical studies show that care workers in nursing homes generally experience several quality of working life issues (Bourdeaud'hui, Janssens & Vanderhaeghe, 2017; Bourdeaud'hui & Vanderhaeghe, 2014; De Prins, 2001; Dhaini et al., 2016; Edvardsson et al., 2009; Sargent et al., 2008). Studies on the quality of working life of care workers in nursing homes confirm the impact of job demands and job control on their health conditions and work outcomes. The individual impact of job control and job

demands (Dhaini et al., 2016; Graf et al., 2016; Van den Berg, 2006), as well as the collective impact of these factors (Schmidt & Diestel, 2011) on care workers' levels of stress are borne out.

The individual (or main) impact of job demands and job control on the work and health of care workers in nursing homes has often been explored. This can be seen in cases when excessive emotional demands induce symptoms of depression in care workers employed in nursing homes (Jakobsson et al., 2016), or when excessive time pressure brings about high work-related stress risks (Edvardsson et al., 2009). The main impact of job control in nursing homes on work and health outcomes is that high levels of job control are related to a higher level of work commitment (Bishop et al., 2008), and a lower intention to leave care jobs (Yamaguchi et al., 2016).

This dissertation argues that besides the main impact of job demands and job control, there is also a combination of both that impacts the work and health outcomes of care workers. Care workers in nursing homes often have too little job control to deal with high job demands. As pointed out in the previous section, this could have a negative impact on their physical and psychological health as well as on their work outcomes. High job demands together with low job control lead to increased stress risks for care workers in nursing homes (Schmidt & Diestel, 2011; Weigl et al., 2016). Van Vegchel et al. (2005) show that decision latitude in highly demanding jobs in nursing homes reduce strain. This results in nursing home jobs with worsened physical and psychological health outcomes, such as higher risks of burnout (Willemse et al., 2012), psychosomatic complaints (De Jonge et al., 2010; Schmidt & Diestel, 2011), emotional exhaustion (Schmidt & Diestel, 2011), or absence because of sickness (De Jonge et al., 2010). Vital to understand is that job control does not randomly buffer the impact of job demands on work and health outcomes in nursing homes (Willemse et al., 2012). An understanding of all sub dimensions of job control and job demands is needed to explain the impact of a job with a low quality of working life. This means that not one sub dimension can be overlooked.

Studies in the service literature underline that clients for whom the employees are working or interacting with influence the quality of working life (Sloan, 2011). High demands from clients will, for instance, often increase the workload of employees (Wharton, 2009). Nursing home care is a service that is provided by employees as well (Lopez, 2010). The service characteristic of nursing home care, therefore, makes that quality of working life is impacted by clients' (residents or family) demands and expectations (Lopez, 2006). This is exemplified with a higher autonomy in the daily care processes for residents, which could lead to less autonomy for the care workers. In this scenario, the residents are the ones making the decisions. In chapter 7 of this dissertation, it is even argued that there are nursing homes who make *trade-offs* between being resident-oriented and giving employees a high quality of working life. This dissertation, however, also suggested that increasing the quality of working life could be a prerequisite for increasing the quality of life of residents. Care workers with more autonomy can, for instance, also react more naturally to residents' care and living demands. Important here is to understand

that the nature of service work fulfilled by care workers in nursing homes also shapes their quality of working life.

This dissertation illustrates the quality of working life issues experienced by care workers in nursing homes with empirical data from Flanders. Since 2004, a survey on quality of working life has been sent out every three years to a representative sample of the Flemish working population (Bourdeaud'hui & Vanderhaeghe, 2014). In 2013, the number of surveys sent out to care workers was increased (Bourdeaud'hui & Vanderhaeghe, 2014). In 2013, 473 surveys were filled out by employees in the nursing home sector. In 2016, 340 were filled out. In the overall health care sector 1.965 employees filled out the survey in 2016. Sub-analyses of the quality of working life of care workers in the nursing home sector were conducted in 2013 and 2016 (see Chapter 5 of this dissertation for a detailed description of the 2013 survey findings). It should be noted that not all the dimensions of job demands and job control outlined in the previous section were used in the survey. The results, nonetheless, reveal significant issues with the quality of working life of care workers in nursing homes. Table 1 summarises the key findings of the conducted analyses.

In 2016, half of the care workers experienced too much time pressure and too many emotional demands. 50.6 per cent of the care workers in nursing homes had too much time pressure, while 46.5 per cent had too many emotional demands. This last finding is in line with the study that Van den Berg et al. (2006) conducted in the Netherlands, which found that there are particularly excessive emotional demands in nursing homes. The findings for the surveyed job control dimensions are still worrisome, but less alarming than these for job demands. In 2016, 33.7 per cent of the care workers experienced little job autonomy, while 15.3 per cent received little social support from supervisors. These high percentages correspond to the high number of care workers (27.4 per cent) who had too much stress on the job. Table 1 also shows that the worrying 2016 findings for time pressure, emotional demands, autonomy and social support from supervisors were more present in the nursing home sector than in the overall Flemish health care sector.

The evolution between 2013 and 2016 is even more alarming than the isolated 2016 findings. A steep increase can be witnessed in the percentage of care workers who experience high time pressure (+10.7%) and high emotional demands (+11.1%). These increases are in line with expectations (see also pp. 22-23), but the steep increase over just three years calls for careful interpretation of the exact percentages. The percentage of care workers with too little job autonomy increased slightly (+2.0%), while the percentage of care workers with too little social support slightly fell with 1.1 per cent. Lastly, the percentage of care workers experiencing too much stress slightly increased (+3.8%).

Although the authors of these studies (Bourdeaud'hui, Janssens & Vanderhaeghe, 2017; Bourdeaud'hui & Vanderhaeghe, 2014) did not identify the job quadrants (see Figure 5), the findings confirm those of previous research that showed that care workers in nursing homes experience several quality of working

life issues (Den Besten et al., 2009; Dhaini et al., 2016; Sargent et al., 2008). The evolution between 2013 and 2016 is especially worrying since it could be the onset of a persisting trend of increasing job demands without gains in job control. Three types of scenarios could explain this general trend. First, it may imply that care workers in active jobs are pushed towards excessive job demands, with no possibility of recuperating from these job demands. Second, it could be the case that an increase in job demands without a similar increase in job control pushes care workers in passive jobs towards the unfavorable high-strain quadrant. And, lastly, it could also be the case that increasing job demands for care workers who are already in high-strain jobs may lead to even higher stress risks. This data collected by the Social and Economic Council of Flanders (SERV) are thus especially useful when it comes to understanding job content as a collective of factors that impact work stress.

Table 1: Percentage of care workers with quality of working life issues in Flemish nursing homes: evolution 2013-2016 and comparison to the overall health care sector

Quality of working life dimension	**Quality of working life subdimension**	**Nursing homes 2013 (%)**	**Nursing homes 2016 (%)**	**Evolution nursing homes (%)**	**Overall health care sector 2016 (%)**
Job demands	Too much time pressure	39.9	50.6	+10.7	38.1
	Too many emotional demands	35.4	46.5	+11.1	41.3
	Too much variation	35.2	34.4	-0.8	22.1
Job control	Too little autonomy	31.7	33.7	+2.0	24.6
	Too little support from supervisors	16.4	15.3	-1.1	12.8
Outcomes	Too much stress	23.6	27.4	+3.8	35.0

Source: own illustration, based on Bourdeaud'hui, Janssens & Vanderhaeghe, 2017; Bourdeaud'hui & Vanderhaeghe, 2014.

2.2.5 Challenges in the organisational context for nursing homes

The quality of working life issues, experienced by care workers in nursing homes, are (even more) challenging because of the predicted changes in the organisational contexts of nursing homes. It has been explained that the demand for beds and care will increase, while labour shortages will simultaneously grow. As previously noted, these developments urge an improved quality of working life, since this will make it possible to reduce labour shortages and to respond to increasing demands for care and beds.

It is important to note that the absence of action for improving the quality of working life of care workers also qualifies as a choice, albeit an upsetting one. The contextual changes namely present the inherent risk of worsening the quality of working life when no or insufficient action will be taken. This will

evidently make it even more difficult for nursing homes to respond to the increasing demands caused by their organisational context. The negative impact of the changing context on quality of working life is outlined in the next few paragraphs. It is, however, acknowledged that these expected impacts are partly speculative and illustrative. This means that more research is needed to find out what repercussions the changing context will bring for care workers should no remedial action be taken.

An increased quantitative demand for beds (see also section 2.1.1) together with a shortage of health professionals could lead to higher job demands. Higher job demands can also be caused by increased care demands, which are not responded to with an increase in staff in nursing homes (Burns et al., 2016). Reasons for this may be found within rationalization processes in the public and not-for-profit sector or financial funding which does not follow the increased care demands. The finding of Bourdeaud'hui et al. (2017) that the quality of working life in the public sector has been decreasing since 2010 may even illustrate that the nursing home sector is only one of the sectors suffering from quality of working life issues because of financial cutbacks. Labour shortages and unchanged staff levels could then result into an increased number of residents per care worker, which in turn could lead to higher time pressure. Today's care workers will have to assume tasks of vacant jobs in nursing homes, leading to a quantitatively higher workload. Care workers will have to complete their own tasks, supplemented with the tasks assigned to the vacant jobs. Increased job demands in the nursing home sector could thus be caused by labour shortages as well as by insufficient investment budgets.

Increased qualitative care demands (i.e. higher care needs, higher care expectations and diversification of the resident population; see also section 2.1.1) may also lead to higher job demands. This is exemplified in three ways. First, care workers may have to work harder to meet the higher expectations of new, more assertive residents. Second, care jobs may become more complex and unpredictable because care workers will need to take care of residents with multiple, complex health issues. Related to this, care workers will increasingly be confronted with the death of residents (Hedinger et al., 2014; Houttekier et al., 2011), which will result in higher emotional demands. Third, the increasingly diverse resident population will make the care process more complex since residents and their relatives may have different understandings of good care (Alfarah et al., 2012). Care workers will need to have different skills and acquire intercultural sensitivity on how to deal with residents from different cultural backgrounds as themselves.

The projected changes in the organisational context of nursing homes when no or insufficient remedial action is taken thus seem to result in higher job demands. The survey findings on the Flemish care situation (Table 1) seemed to confirm this, since job demands have already increased in recent years. The tendency of a lower quality of working life in the nursing sector has thus begun. The predicted changes show that the demands in the nursing home context will only increase in the next decades, potentially further worsening the quality of working life of care workers. The potential impact of the changing organisational context on quality of working life reinforces recent calls (e.g. Cooke & Bartram,

2015; Hussain et al., 2012) for studies that explore how the quality of working life of care workers in nursing homes can be improved.

In sum, the reasons for calls for a higher quality of working life in nursing homes, explained in this dissertation, can be linked to the perspectives of three main stakeholders. Using a labour market and managerial perspective, it was first argued that shifting demographics will lead to a labour shortage of health professionals (Hussain et al., 2012), a higher demand for beds (Pacolet et al., 2014), higher care expectations of residents and relatives (Brune, 2011), a diversified resident population (Alfarah et al., 2012), and more complex care needs (Pacolet et al., 2014). This dissertation argues that a higher quality of working life for care workers will help organisations address the increasing demands that come with their changing organisational context.

Using an organisational perspective, it was subsequently argued that care workers in nursing homes currently experience several quality of working life issues (Bourdeaud'hui, Janssens & Vanderhaeghe, 2017; Bourdeaud'hui & Vanderhaeghe, 2014; Dhaini et al., 2016; Sargent et al., 2008), which are expected to worsen over the next decades. It is argued in this dissertation that a higher quality of working life will cause a lower risk for physical and mental health problems (Karasek, 1979), while also producing more challenging jobs (De Spiegelaere, 2014).

From a resident perspective, it was finally argued that future residents will have higher care expectations (Brune, 2011) and more complex care needs (Pacolet et al., 2014). It is proposed in this dissertation that a higher quality of working life for care workers will help organisations offer superior personal care to their residents.

2.3 NSSL as an opportunity for improving quality of working life

The literature on quality of working life has, to date, mostly focused on the impact of job demands, job control and social support on employee outcomes. The impact of organisational structures on quality of working life is often overlooked. Inspired by Modern Sociotechnical Theory (De Sitter et al., 1997; De Sitter, 1998; Dhondt & Benders, 1998; Pot et al., 2009; Vermeerbergen et al., 2016; see also Total Workplace Innovation, Van Hootegem, 2016), this dissertation examines how division of work (i.e. organisational structures) highly impacts job demands and job control. Professions can thus not be merely situated in one of the four job quadrants, since different jobs within the same professional group could be situated in other organisational structures as well. This insight is in contrast with the studies of Kristensen (1996) and Pollet et al. (2000), which detail how professions are divided across the job demands-control(-support) model. Table 1 showed the percentage of employees who experience quality of working life issues in the nursing home sector.

Concepts on how to give care, which create different organisational structures, could therefore impact the quality of working life of employees in different ways. In other words, the organisational structures of nursing homes are highly influential for the quality of working life of care workers. This dissertation argues that although 'normalised small-scale living' in nursing homes is a first step towards improving the quality of working life of care workers, insights from organisation studies may suggest other ways to improve the quality of working life. The following section defines the concept of 'normalised small-scale living' and subsequently shows how the concept benefits both from the insights of organisation studies, and work and employment studies.

2.3.1 A definition of normalised small-scale living

The concept of 'normalised small-scale living' (NSSL) is a clear example of how institutionalized care processes in nursing homes are changed to comply with the need for more personal care (Adams et al., 2017; Verbeek, 2011). Nursing homes that have adopted this approach aim to offer residents living conditions that are similar to those outside the care facility. Residents, for instance, have ample say in what their daily activities are and how these activities are organised. The idea behind this is that residents, as far as health conditions permit them, can lead a normal life in a homelike and family-like care environment. This is a key example of how this concept emphasises the social aspects of care in addition to the traditional medical aspects.

Studies published on NSSL disagree on the core principles of the concept. Table 2 illustrates this by detailing the core NSSL principles in the eight studies reviewed in Chapter 4 (see also: Vermeerbergen et al., 2017) on the relation between the quality of working life of care workers and NSSL. Conventional or non-normalised large-scale homes will thus not realise these core principles and have, for instance, large living groups (see principle 3; Van Audenhove et al., 2003; Verbeek et al., 2010; Zeisel et al., 1994). It is namely argued that these principles make it simpler to maintain a full range of everyday activities and to create a homelike atmosphere. The majority of the studies reviewed, however, agree on the objective of NSSL. Seven studies highlight that NSSL aims to create a new organisational culture that is termed 'normalised way of organising' or 'homelike living'. The studies did not agree on what core principles need to be met under this approach. The core conditions needed for NSSL that were examined in the reviewed studies were clustered into four categories. First, six studies noted that the daily care workers need to complete integrated tasks in order to create a homelike environment (Loe & Moore, 2012; Te Boekhorst et al., 2008; Van Beek et al., 2011; Van Zadelhoff et al., 2011; Verbeek et al., 2010; Verbeek et al., 2012). In these studies, care workers in NSSL nursing homes do not only perform medical and social tasks but also might do laundry or cook for residents. The studies did not clarify, however, which specific tasks an integrated job needs to include and which tasks can be outsourced or centraliseed.

Second, six of the studies argue that NSSL nursing homes require a different, more homelike physical environment than conventional nursing homes. Three studies argue that NSSL nursing homes should be located in archetypical houses, but they do not offer any further explanation (Van Zadelhoff et al., 2011; Verbeek et al., 2010; Verbeek et al., 2012). Loe and Moore (2012) argue similarly that NSSL should be organised within self-contained houses. The studies are more precise on what the desired location of basic facilities and nursing uniforms should be. Two studies argue that domestic appliances such as washing machines and refrigerators should be located within the living unit (Loe & Moore, 2012; Van Beek et al., 2011), while one study notes that care workers in NSSL cannot wear uniforms (De Rooij et al., 2012).

Third, all the studies underline that the number of residents per living unit in NSSL should be a limited amount, although they do not agree on a desirable number of residents. The numbers vary from a maximum of six (Te Boekhorst et al., 2008), to eight (Kuremyr et al., 1994; Van Zadelhoff et al., 2011; Verbeek et al., 2010; Verbeek et al., 2012) and 12 (Loe & Moore, 2012; Van Beek et al., 2011) to 15 (De Rooij et al., 2012) residents per living unit. An important side note to this, is that an inclusion criterion for what studies to select in Chapter 4 was the limited number of residents per living unit. Here, however, it is revealed that the authors hold different opinions on the precise size of a limited group of residents.

Fourth, five studies argue that NSSL nursing homes should have a different organisational structure from conventional nursing homes. There is no consensus, however, on what this means. Some argue that fixed teams of care workers need to be assigned to living units (Verbeek et al., 2010; Verbeek et al., 2012), while others underline the need for cross-functional work units (Kuremyr et al., 1994; Van Beek et al., 2011), the absence of hierarchical leadership (Kuremyr et al., 1994) or a limited number of living units (Te Boekhorst et al., 2008).

NSSL is often defined as a unified concept that offers residents a homelike environment (the definition of this concept is further discussed in the research chapters). It was shown here that the literature sees four necessary core principles in order to realise this concept: integrated jobs, an altered (homelike) built environment, a limited number of residents and an altered organisational structure. There was no agreement on what these principles meant in practice, and the authors often used vague terms to describe these core principles. The concept of NSSL did not seem to have as singular a definition as it was often presented.

This is especially the case when examining the organisational structure. In this dissertation, it is shown that the NSSL concept provides different ways in which the organisational structure can be implemented (for empirical data, see chapter 7), and that organisational insights could play an important role in developing a streamlined approach to the division of work in NSSL could play a role in increasing the quality of working life of care workers. The objective of this dissertation is to lay out the building blocks

for an improved understanding of organisational structures in NSSL. These buildings blocks are especially important since this dissertation aims to show in what ways the quality of working life of care workers could be improved. Existing organisational structures are, after all, highly predictive for the quality of working life of employees (De Sitter, 1997; De Sitter, 1998; Pot et al., 2009; Vermeerbergen et al., 2016). The lack of a clear definition of the division of work could lead to conflicting findings for the quality of working life of care workers in NSSL nursing homes, since care workers may be employed in varying organisational structures.

Table 2: Objective and core principles of 'normalised small scale living'

Defining aspects		**Studies reviewed in Chapter 4**							
		De Rooij et al. (2012)	**Kuremyr et al. (1994)**	**Loe and Moore (2012)**	**Te Boekhorst et al. (2008)**	**Van Beek et al. (2011)**	**Van Zadelhoff et al. (2011)**	**Verbeek et al. (2010)**	**Verbeek et al. (2012)**
Objective of concept	Normalised culture	X	X	X	X		X	X	X
Core principles of concept	Integrated jobs			X	X		X	X	X
	A different physical environment	X				X	X	X	X
	A limited number of residents	X	X	X	X	X	X	X	X
	A different organisational structure	X	X	X	X	X		X	X

2.3.2 Contributions of organisation studies to an improved quality of working life in normalised small-scale living nursing homes

The NSSL model has a high potential to not only to improve the quality of care for residents, but to also improve the quality of working life of care workers. This potential can be optimized through implementing insights from organisation studies into the work organisation of NSSL. This section (1) shows the reasoning for a higher quality of working life in NSSL (these reasons are also challenged in this section), (2) clarifies why NSSL could benefit from insights from organisation studies, and (3) discusses specifically three ways in which organisation studies contribute to an enhanced understanding of how NSSL may improve the quality of working life of employees.

At first glance, there appears to be a clear relation between the concept of NSSL and the quality of working life of care workers. Care workers are, for instance, tasked with more varied, unpredictable and complex tasks (i.e. the job demands are higher) because they have a more integrated task package: these include all the needs of residents in a small living unit. Job control might be linked to NSSL because of the small living units that are, as discussed in the previous section, one of the core principles of NSSL. Care workers are expected to have higher discretion because they have to manage the entire living unit. Higher job demands and higher job control are thus predicted for NSSL compared to conventional nursing homes.

The NSSL concept was developed in order to increase the quality of life of residents, in the sense that it aims to offer residents homelike and normalised care. Our discussion in Table 2 of this chapter indicated that NSSL does not clearly state how work should be divided within organisations. The objective of this dissertation is to show how the division of work explicitly impacts the outcomes of NSSL. This dissertation explicitly states that the manner in which organisations are structured is lacking in the literature on NSSL (for an exception see: Declercq, 2009). This leads to the fact that adding organisational insights to the NSSL concept could not only be beneficial for the quality of working life of care workers, but could also challenge the presented relation between NSSL and quality of working life. The relation between NSSL and the quality of working life of care workers is studied in this dissertation in three ways: the organisational structures present in NSSL nursing homes, the architectural context in which these structures are realised, and practice variation of the NSSL concept.

Organisational structure[1]. Modern Sociotechnical Theory (MST) is organisation theory on production and service processes, and lays out how to structure these processes to enhance the quality of working life of employees (De Sitter, 1998). Sociotechnical theory has been further developed in recent years and termed 'Total Workplace Innovation' (Van Amelsvoort & Van Hootegem, 2015; see conclusion for more information on this concept). Organisation consultants, who use MST in practice, even use quality of working life as one of the design criteria for developing optimal organisational structures. The core idea is that in the tradition of MST a balance between job demands and job control is present in organisations with an order and a decentralised organisational structure, when comparing it to organisations with an operation and centralised structure (Dhondt & Benders, 1998; Pot et al., 2009; Vermeerbergen et al., 2016). Figure 6 shows a graphical depiction of an operation and an order-oriented structure.

- In an *operation-oriented structure*, different (aspects of) operational tasks are grouped into divisions, independent of the flow of orders. In other words, each division is specialised in either one or a few different types of operational tasks. When there is a lot of order variation in the organisation, there is no fixed sequence between divisions. The flow of orders within the overall process is not only complex and flexible, but also time-consuming and non-innovative. When there is few order variation, the sequence of operations for the orders is fixed. As a result, the complex production process is then replaced with a simple, rigid and non-innovative order process.
- In an *order-oriented structure*, operational tasks are organised around parallelised flows of products or services. Each operational division or work unit is specialised in a subset of products or services and thus produces just one or a few products or services. This structure results in a simple, flexible and innovative production or service process.

It is argued that an order-oriented structure leads to higher job demands because parallel order flows lead to less order variation within the unit which conduct all (or most) operations for the few orders. Notably, some job demands (like time pressure) are also expected to be reduced because a simple and

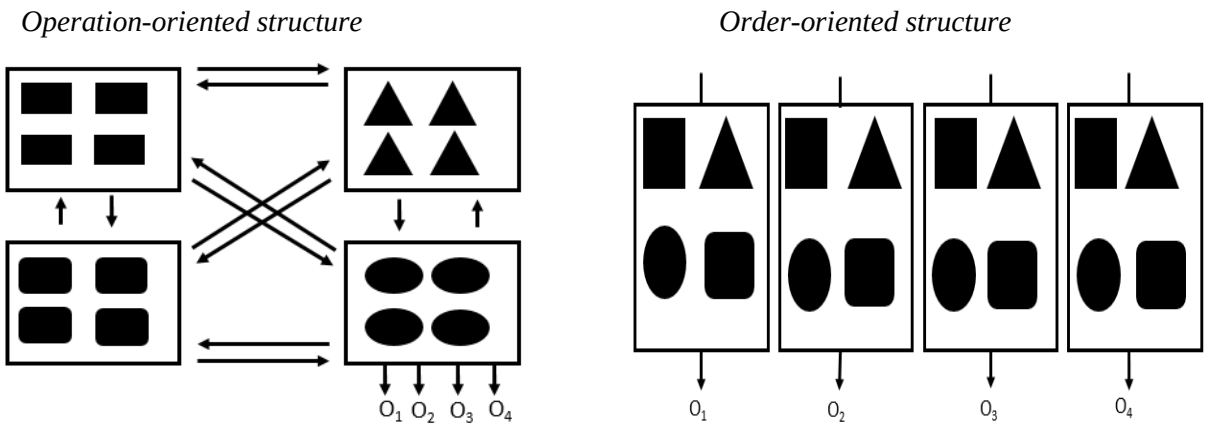
[1] This paragraph is partly based on two articles which are not included in this doctoral dissertation, see:

Vermeerbergen, L., Van Hootegem, G., & Benders, J. (2016). Putting a band-aid on a wooden leg: A sociotechnical view on the success of decentralisation attempts to increase job autonomy. *Team Performance Management, 22*(7/8), 383-398.

Vermeerbergen, L., Pless, S., Van Hootegem, G., & Benders, J. From silos to cells: Reducing repetitive jobs through sociotechnical redesign. *Economic and Industrial Democracy* [forthcoming]

flexible structure is created with limited (ideally even none) critical interference with other actors (Benders et al., 2006; Vermeerbergen et al., 2016). Limited critical interferences refer to jobs within the same work unit or operational division that are responsible for one or a few products or services, and are independent of jobs in other work units. Work units can only depend on each other when there is good reason for them to become interdependent. It has been argued that such a simple structure leads to a reduction of deviation, and therefore to fewer job demands. It may also prompt higher job control since employees who manage the overall work process instead of only part of it can react more adequately to deviation in the work process.

Figure 6: Operation-oriented structures and order-oriented structures



Legend: each of the four different symbols (, , and) refers to one set of operations; the arrows refer to the order flows, which we number order 1 (O_1), order 2 (O_2), order 3 (O_3) and order 4 (O_4).
Source: own illustration, based on Van Hootegem, 2000.

Next to the difference between a silo and a stream structure, authors inspired by the Modern Sociotechnical Theory (De Sitter et al., 1997; Dhondt and Benders, 1998; Huys et al., 1999; Van Hootegem et al., 2004) underline that the centraliseation of indirect tasks in an organisation, as shown by separate staff-line divisions, is harmful to the quality of working life. Regulation need and regulation capacity are namely structurally separated. It is posed that organisations need to decentralise indirect tasks from supervisory, administrative or managerial units to production or service units (Huys et al., 1999).

Highly centraliseed organisations have more jobs with either direct production or service tasks (within production or service units), or indirect supervisory, administrative or managerial tasks (within specialised units). In other words, because indirect tasks are assigned to specialised units, these control tasks cannot be assigned to individual production or service jobs. Highly decentralised organisations have a higher chance of including jobs with indirect and direct tasks. This can be explained in terms of

the absence of specialized units in order to fulfill indirect tasks. Notably, these organisations can still include jobs with low job control. An example is a situation where specialised employees in teams fulfill all of indirect tasks (e.g. administration, cleaning staff, or pastoral care). Therefore, even though highly centralised organisations can certainly have jobs with low job control, highly decentralised organisations can consist of jobs with either low or high job control. For that reason, organisations need to implement both an order-oriented and a decentralised organisational structure in order to increase the quality of working life of employees.

Applied to nursing homes, MST is translated as follows. In sociotechnical nursing homes the organisational vision is used as a guideline to give form to the organisational structure. NSSL nursing homes will mention the homelike nature of care in their organisational vision, which will then become an important criterion for their organisational structure. Nursing homes, who use a different organisational vision from NSSL, will push forward different criteria. This way, the financial costs or the quality of working life can be included. Nursing homes with another approach can therefore come to different organisational structures.

Modern Sociotechnical Theory prefers a decentralised and order-oriented structure, since it deems quality of working life as well as organisational performance as important design criteria. Pot and Koningsveld (2009), for example, state that quality of working life and organisational performance are two sides of the same coin. The organisational performance can refer to the degree of homelikeness or the financial situation. As it has been discussed previously, this decentralised and order-oriented structure improves the quality of working life.

In an order-oriented structure residents are grouped together in living units in such a way that the number of critical dependencies between living units is limited as much as possible (see: 'parallellisation principle' of MST; De Sitter, 1998). Residents are the orders in nursing homes. Living units with residents grouped together based upon clear principles will have the capacity to function independently of each other. When grouping residents, it is possible to follow priciples such as their care needs, but it does not necessarily have to be solely based on those. Examples of other possible grouping principles are dementia, Parkinson's disease, income, hobbies, gender or educational background. These are only a few possible principles for grouping residents. The grouping, above all, needs to happen in a well thought-out way and be based on the vision of the organisation. For example, a nursing home that targets residents from three different municipalities can opt to create living units according to municipality. In case of NSSL nursing homes the grouping needs to be happen in line with their organisational vision on homelikeness and their target resident population.

In an order-oriented structure, a permanent team of employees (or the daily care team) is subsequently assigned to each living unit. That creates a system where little coordination is needed between care teams. Preferably, each team consists of six to twelve employees. In practice, this means that it is

possible to opt for three scenarios (the number of residents per unit in each scenario outlined here is only an indication):

- To form small living units where a team is attached to each living unit. In total a team would take care of 6 to 15 residents.
- To form small living units where a team is attached to multiple (connected) living units. In total a team would take care of 12 to 30 residents.
- To form mid-sized living units where a team is attached to each living unit. A team would take care of 20 to 30 residents.

MST prefers option 2 for NSSL nursing homes. This option not only allows for small living units to create a homelike environment, but also lets employees have sufficient job control over the care process. Connected living units, namely, make it easier for employees to seek support from colleagues and supervisors.

MST advocates that the daily care team takes on as much of the total care of residents as is possible (see: 'completeness principle' of MST; De Sitter, 1998). It is necessary to determine what needs to be done by the care team and what needs to be done within the overarching organisation. Choosing what the core tasks are for an organisation plays an important role, since, according to MST, all core tasks need to be performed by the daily care team. Core tasks are those activities that are directly organised in the interest of the resident. These tasks can be derived from the organisational vision, and can thus differ across nursing homes. In a NSSL nursing home the homelike environment will ensure that cooking for residents is an integral part of the core tasks. This is not necessarily the case for nursing homes that do not have a vision that includes homelikeness.

Three kinds of tasks are needed to make the smooth execution of core tasks possible: supporting tasks (e.g. accounting and quality management), preparatory taks (e.g. cleaning the table and preparing medicin) and regulatory tasks (e.g. vacation planning and budgetary management). MST states that each of these tasks needs to become embedded in the daily care team, unless there is good reason to place it within the overarching organisation (this is the 'unless-rule' of MST). Valid reasons, amongst others, could be that the care team does not have a reference framework, that they cannot evaluate impact properly or that it has insuffiient knowledge and access to information. The above rule ensures that there is talk of a decentralised structure wherein the decision-making capacity of supervisors, management teams and supporting teams is transferred to the daily care teams. Interdependence in terms of arranging care, living and working between the care team and other people or services need to be avoided. Work units need to be able to react to deviation within the care and living process.

Attaching the total care of residents to daily care teams affects the composition of these teams, the tasks the care workers in these teams need to perform, and the tasks that can be performed by external organisations. First of all, the choices above in relation to what tasks need to be embedded in these daily

care teams and in what way residents need to be grouped in living units has an impact on the composition of a team. If, for example, it is required in a certain living unit to cook for people who suffer from dementia, there is a need for expertise in the team both on how to deal with dementia and how to cook. An order-oriented and decentralised structure usually leads to daily care teams consisting of employees with different disciplinary backgrounds or expertise, who will take care of a small group of residents (e.g. nurses, care assistants, cleaning staff, etc.). In practice it is challenging to build a team that incorporates all expertise. It has to be economically viable, for example, to have a physical therapist and technician in each team. Therefore it is often opted to attach these specialists to multiple teams, to centrally develop multidisciplinary specialist teams or to keep certain specialists centrally while also embedding them in the care teams. Option 1 shows more connection between specialist and the daily care team than option 2 and 3 do. Within MST, it is advocated to place necessary expertise as close as possible to the daily care team.

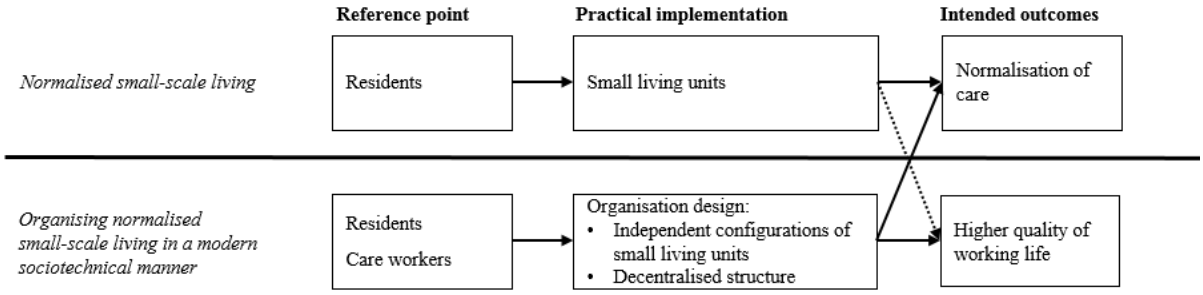
Secondly, attaching all of the care to teams creates the necessity for broad task packages for employees, whereby, for example, the same employees perform care tasks and domestic tasks. It is namely important that the daily care team can provide care continuously. A rigid division of tasks within a small team would hinder continuous care. Who would help a resident go to the bathroom, when the employee who is responsible for this task is busy with another resident? This does not mean that all employees within the daily care team need to perform the same tasks. It is not necessary to completely blur the lines between the functions of employees. Employees in daily care teams can be assigned specific tasks based upon their expertise or interests.

Thirdly, ideally there are few or none critical dependencies between external organisations and the daily care teams who are responsible for the total care of a senior resident. Care is nowadays provided by different organisations. An example of this is that cooking often is an acitivity that is outsourced. Depending on what choices are made based upon a certain Organisational vision, these activities need to be integrated as much as possible in order to enable the care team to provide the total care for the residents.

It is remarkable that MST, just as NSSL, underlines the importance of small (living/production) units (Benders & Missiaen, 2015; Corvers & Van Hootegem, 2013). NSSL, however, does not state how a small living unit should be defined and it also does not explicitly discuss design criteria. There are, for instance, no clear guidelines on the composition of residents in living units, or on how decision authority should be divided across and within work units. NSSL does also not, or just slightly, refer to the ways care, personal, supporting, preparatory and regulatory tasks are divided. NSSL, thus, lacks a definition of how organisational designs should be structured in nursing homes. The consequence of the lack of a clear definition for organisational designs is that individual NSSL nursing homes may choose (consciously or unconsciously) an organisational design that leads to less deviation and high job control for care jobs. But this could be a coincidence since NSSL does not set out clear design principless. The

real reason behind differences in quality of working life between NSSL and conventional nursing homes might thus be because of the different organisational structures of which the care jobs are part. The link between NSSL and the quality of working life of care workers may consequently be illusory. Figure 7 shows the relation between MST, NSSL and the quality of working life of care workers.

Figure 7: The impact of normalised small-scale living and modern sociotechnical theory on the quality of working life of care workers



Legend: the full arrows signify the theoretical relations; the dotted arrow signifies the potentially incorrect way of thinking in the concept of NSSL.

Technical aspect system and organisational structure. MST underlines that technical aspect systems have to fit into organisational designs (Kuipers et al., 2010). The technical aspect systems refer to the technical relations between all elements in an organisation (Kuipers et al., 2010). Examples are the use of robots, the use of ICT, and even the consisting physical space in nursing homes. More precisely, technical aspect systems should follow the division of work in organisations. Technical systems have to be created so that decisions can be made at the lowest organisational level (i.e. in line with the principle of a decentralised structure), and so that there is limited interference between work units (i.e. in line with the principle of an order-oriented structure). This is exemplified with a decentralised organisational structure in a nursing home, where front care workers have been assigned to make their own work planning, but where the ICT-system only allows supervisors to perform this task. The consequence of this misfit between the technical aspect system and the organisational structure will be that care workers cannot perform this task, and that the designed organisational structure will not be put in practice. Moreover, systems that fail to adhere to these criteria increase the risk of deviation and could thus trigger higher job demands, without increasing decision-making authority in lower organisational levels. The (technical) context in which the structures will be realised are, in practice, therefore important for the quality of working life of care workers.

This dissertation focused on the built environment as a part of the technical aspect system. A number of studies on NSSL and quality of working life (see Table 3) have outlined the importance of an altered

built environment (De Rooij et al., 2012; Loe & Moore, 2012; Van Beek et al., 2011; Van Steenwinkel, 2015; Van Zadelhoff et al., 2011; Verbeek et al., 2010; Verbeek et al., 2012). It is thus argued that this element of the technical aspect system has to change when organisations realise NSSL. Still, these studies did not agree on what this exactly meant and they also did not explain the relation between an altered built environment, the quality of working life of care workers and organisational designs. In line with MST, this dissertation argues that the quality of working life of care workers could be highly impacted by the relation between technical aspect systems (here referring to the built environment) and organisational designs.

Practice variation. Studies in organisation studies note that concepts often vary in practice when implemented across organisations (Ansari et al., 2010; Benders & van Bijsterveld, 2000; Fiss et al., 2012; Lounsbury et al., 2001; Sine et al., 2005). It was argued in the beginning of this section that the small number of residents per living unit and the integration of tasks in jobs in NSSL nursing homes, at first glance, lead to a higher quality of working life than in conventional nursing homes. These insights from organisation studies raise the question of whether the 'integration of tasks in jobs' and the 'small number of residents' also vary in practice and how such variation might be explained. It can be that in practice NSSL nursing homes integrate tasks into jobs differently: Do nurses have to cook? Do care assistants have to wipe the floor? Does the cleaning staff have to wash residents? In the same vein, can the scale of a small living unit differ: Is a living unit with sixteen residents still a small living unit? Is fifteen residents per living unit not too large a number, and is six to eight residents the number to be strived for? Is a unit of twenty-five residents still small, especially when compared to large units consisting of around sixty residents? If practice variation in NSSL exists, this may explain why care workers in some NSSL nursing homes have a higher quality of working life than workers in other NSSL nursing homes – under the hypothesis that the relation between quality of working life, and 'integration of tasks in jobs' and 'small number of residents' is confirmed.

In summary, there is need for studies, which examine in what ways the quality of working life of care workers in nursing homes can be improved (Cooke & Bartram, 2015; Hussain et al., 2012). This dissertation examines whether and how the concept of normalised small-scale living improves the quality of working life of care workers. Nursing homes realising this concept aim to create a homelike environment for residents, where they can have a life like they had outside of the care facility. The impact of NSSL on the jobs of health professionals are further detailed in three manners.

1. It is examined what the role of organisational structures in NSSL nursing homes is.
2. It is examined how and whether the technical context (with a specific focus on the built environment) in which structures are put into practice influence the quality of working life of care workers.
3. It is examined whether and why the concept of NSSL is realised differently in practice, and plausibly leading to different outcomes for the working life quality of care workers.

2.4 Theoretical outline of the chapters

The main objective of this dissertation is to explore whether care workers in NSSL nursing homes have a higher or a lower quality of working life than those in conventional nursing homes. This thesis investigates how this may be explained, and will in particular examine if acknowledging the organisational structures in which NSSL-arrangements are realised add a conceptual aspect to the NSSL model that will help understand the factors contributing to a higher quality of working life.

Hereby, we aim to contribute to the literature on what ways help to improve the quality of working life of care workers in nursing homes. The contributions of this dissertation particularly lie in the potential building blocks for organisational designs in NSSL. In doing so, this dissertation examines the ways in which the field of organisation studies might contribute to the NSSL literature. This section consists of a summary of the five research chapters and their relation to each other (see also Figure 8).

All the research chapters in this dissertation focus on NSSL nursing homes and use the definition of quality of working life offered in this chapter. The research chapters built upon each other. The first two chapters provide an overview of the findings of empirical studies on the impact of NSSL on the quality of working life of care workers. Chapters 4 and 5 find that care workers in NSSL nursing homes experience a higher quality of working life than those in conventional nursing homes but underline that more research is needed to explore how the particular issues related to quality of working life in NSSL might be resolved (i.e. experiences of low social support and excessive job demands) and how the conflicting findings across the reviewed studies should be understood. It was specifically hypothesised in these chapters that variation in organisation designs and architectural settings could explain conflicting findings and offer solutions to quality of working life issues. This dissertation therefore suggests that NSSL is realised in different organisational forms, plausibly leading to different quality of working life outcomes. In chapters 6, 7, and 8 insights from the field of organisation studies are used to examine this further. Chapter 6 confirmed that there is practice variation of the NSSL concept, as was suggested in chapters 4 and 5. Research was then conducted into the heterogeneity of organisational designs in NSSL (see Chapter 7) and the impact of the built environment (see Chapter 8) on the quality of working life of care workers.

Chapter 4 presents an overview of the findings of internationally published studies and demonstrates that NSSL offers a good starting point towards a higher quality of working life in nursing homes. Care workers that work in NSSL nursing homes experience higher job control in order to handle higher job demands. More research, however, is needed to examine strategies that address the perception of care workers that NSSL nursing homes offer too little social support and that they impose too many job demands. This chapter also observes that conflicting results for social support, mental strain, work motivation and burnout can be found across different studies.

Chapter 5 offers an overview of the study findings in articles on the Flemish care situation. It shows that NSSL increases quality of working life of care workers but that it does not guarantee an overall improvement, since empirical studies also identified issues of social support and excessive job demands. These studies also show conflicting findings for mental strain and burnout risks.

Chapters 6, 7 and 8 show that the quality of working life issues found in NSSL as well as the conflicting findings for social support, mental strain, work motivation and burnout (see Chapters 4 and 5) are explained by the different ways in which NSSL are realised in practice (i.e. differences in built environment, differences in how NSSL core principles were realised and differences in organisational design). The findings of these three chapters show the importance of organisational structures in the NSSL concept and offer some building blocks to help figure out how a notion of organisational structures might be integrated into this concept.

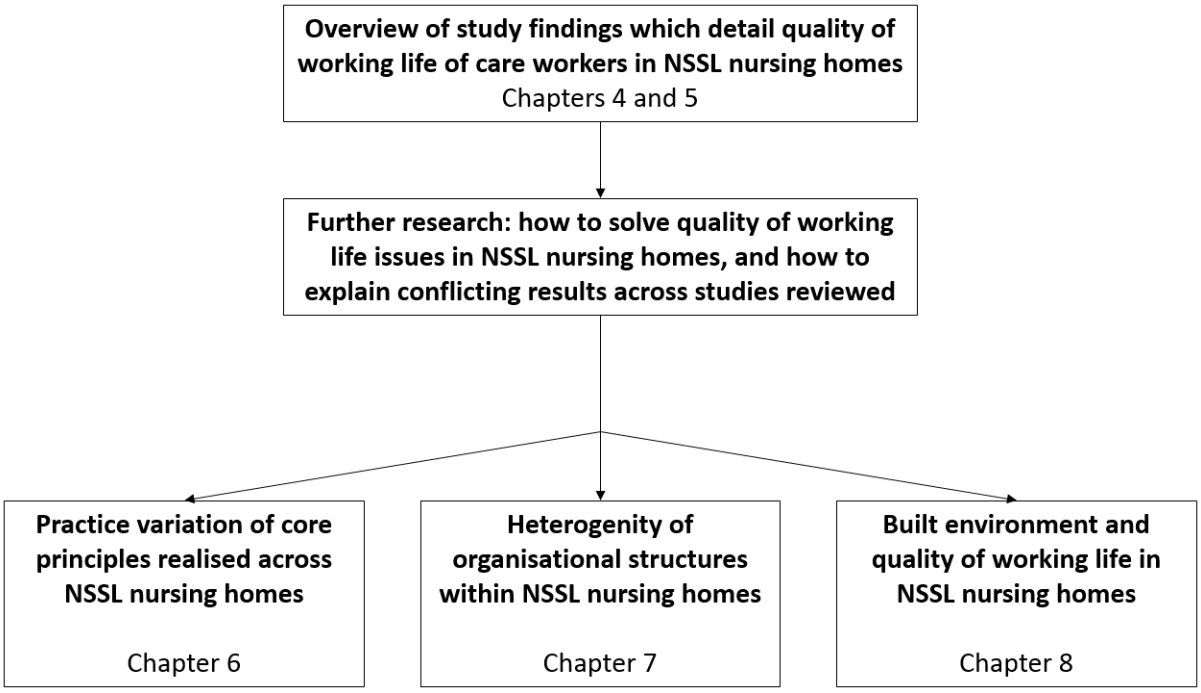
Chapter 6 finds that the realisation of the NSSL concept across nursing homes is intrinsically heterogeneous and that practice variation is the rule rather than the exception. This is also in line with the findings detailed in Table 3, which outline how heterogeneously NSSL is defined in the literature. The findings explore how practice variation is influenced by the constraining context into which concepts are introduced and how it is mediated by managerial interpretations (full or partial buy-in) of the concept, as well as managers' agency in relation (alleviate, accept, accede) to these constraints. This chapter consequently asks whether the studies reviewed in Chapter 4 and 5 actually discussed nursing homes that realised the NSSL concept in the same manner. This chapter simultaneously raises the question whether full or rather partial implementation of the practice advances the quality of working life of care workers. Some managers, for instance, did not fully adopt the concept due to concerns about the quality of working life of care workers.

Chapter 7 maps the intra- and supra-organisational division of work within NSSL nursing homes. It finds that NSSL nursing homes exist in various organisational designs. At one end of the spectrum, a daily practice team independently organises all care and social tasks for residents in one unit. At the other end of the spectrum, such a team is highly dependent on other work units. It is noted that different designs could lead to different outcomes for the quality of working life of care workers.

Chapter 8 examines the impact of the built environment on quality of working life of care workers in a NSSL nursing home, which implemented a sociotechnical inspired organisational structure. The quality of working life of care workers was compared in two groups, with one group working in an adapted building with living units grouped around large hallways and the second group working in living units in purpose-built small houses. It was found that the built environment influences how care workers experience their quality of working life. We specifically find that NSSL is less favorable in terms of quality of working life in small housing projects than it is in large buildings, since higher job demands came with lower peer support. Job control and supervisory support did, however, not differ. The impact

of the built environment, though, has to be nuanced due to the complex network of contextual factors that could affect the quality of working life of care workers. Chapter 6 and 7 elabourate on two of these contextual factors: full adoption of the NSSL concept (see Chapter 6) and organisational design (see Chapter 7).

Figure 8: Structure of the dissertation



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CHAPTER 3. METHODS

The previous chapters discussed the theoretical framework of this dissertation and how the research chapters are connected. This section discusses the dissertation's research design, the data collection process and what data collection instruments were used. To avoid unnecessary repetition, the data analysis is discussed in each research chapter respectively. Figure 10 gives an overview of the study objective, research design, data collection and data analysis for each research chapter. More information on what methods are used in each chapter can be found in each individual chapter, as well as in the final section of this chapter.

3.1 Research design

This dissertation uses a mixed methods approach. Johnson et al. (2007, p. 123) define this approach as '*the type of research in which a researcher or a team of researchers combines elements of qualitative and quantitative research approaches (…) for the purpose of breadth and depth of understanding and corroboration'*. The aim of the research design used in this dissertation is to examine in 'breadth and depth' whether NSSL impacts quality of working life. Therefore, both quantitative and qualitative data are collected: published quantitative and qualitative studies, employee surveys, interviews with managers and care workers, focus group data, site observation notes, care workers' daily walking distance and administrative data.

Different data sources are used to *understand* the impact of NSSL on quality of working life. Chapters 4 and 5 detail, for instance, - by reviewing published studies on the impact of NSSL on the quality of working life of care workers - that this impact differs across NSSL nursing homes. The same finding is presented in chapters 7 and 8, but these chapters also explain these differences. Chapter 7 conducts interviews with managers of NSSL nursing homes. It was detailed that organisational design differences within care settings could explain quality of working life differences across NSSL nursing homes. Chapter 8 uses employee surveys to detail the quality of working life in two built environments of one NSSL nursing home. It was detailed that the architectural setting of NSSL nursing homes influences the quality of working life of care workers.

Different data sources are used to *corroborate* the dissertations' findings. The use of a mixed methods design makes it, in fact, possible to offset the limitations of one method by making use of the strengths of another method. This can be shown in two ways. In chapters 6 and 7 the interview findings are confirmed by site visits and administrative findings. In chapter 8 the qualitative findings confirm the quantitative findings. Different data sources are thus used to corroborate each other's findings.

This dissertation uses a complex mixed methods design. Natasi and Hitchcock (2016) argue that such designs have the following characteristics: multiple research phases, mixed methods designs within the different phases and conducted over several years. This study fulfills all three of these main aspects:

- Data are collected across two stages, with the findings of previously collected data influencing the next data collection (Creswell & Clark, 2018; Fetters et al., 2013). The aim was to explain the findings of the first stage by the data collection process in the second stage. Creswell et al. (2018) call this variant of mixed methods designs the 'follow-up explanatory sequential design'. The use of different stages has the main advantage that it is possible to progressively gain more information when the understanding of a phenomenon is still incomplete. In a first stage, two literature reviews were conducted on quality of working life issues and benefits for care workers in NSSL homes (see Chapters 4 and 5). The next stage (see Chapters 6, 7 and 8) discusses three explanations for the review findings (i.e. built environment, practice variation, and organisational design), which are informed by the discussion sections in the reviews and the theoretical framework discussed in this chapter. The findings are reported in separate research chapters. The last section of this chapter outlines in detail how the research chapters are related to each other.
- Data are collected over three years. In April 2015 studies were collected for the literature reviews (see: Chapters 4 and 5). From December 2015 till September 2017 managers from NSSL nursing homes were interviewed about practice variation and organisational designs (see: Chapters 6 and 7). Between April 2015 and April 2017 data were collected in one case organisation to examine the impact of built environments on quality of working life in NSSL nursing homes (see: Chapter 8).
- In addition to the overall research design of this dissertation, the three research chapters are also designed to be multi-methods studies. The objective was to either validate or explain the study findings examined, using the different data sources. This is exemplified with, for instance, chapters 4 and 5, which examine the impact of NSSL on quality of working life by reviewing qualitative and quantitative articles. Chapter 6 and 7 use administrative data to corroborate the interview findings that were conducted with managers. Chapter 8 collected interviews with managers, interviews with care workers, pedometer data, employee surveys and focus groups to understand in depth the impact of the built environment on quality of working life in a NSSL nursing home.

The following section explains that the data was collected in Flanders and also outlines and clarifies the data methods that were used.

3.2 Data collection and analysis

3.2.1 Selection of region: nursing home care in Flanders

The empirical research chapters (Chapters 6, 7 and 8) as well as one review study (Chapter 5) were conducted in Flanders (a region in Belgium). This region was deliberately chosen for the four reasons discussed in the introduction of this dissertation: a potential increase in the number of Flemish NSSL nursing homes in the coming decades, a presumably high interest in the impact of organisational structures on quality of working life in Flanders, quality of working life issues in Flemish nursing homes, and potential future labour shortages in Flemish nursing homes. In addition, it was also a methodologically deliberate choice to examine only one context, since a diffuse institutional environment also diffuses the way in which a practice is realised (e.g. Abelson et al., 2007; Cole, 1985; Maurice et al., 1980).

The number of normalised and small-scale nursing homes seems to be relatively small in Flanders. There are no concrete data available on the exact number of NSSL nursing homes, but that it is a small number is exemplified by the fact that the network of normalised small-scale living consists of about 15 nursing homes as active members. Per 1 April 2018 there were 813 recognized nursing homes in Flanders and the Capital Region of Brussels. Because of financial and legislative problems NSSL became not as great a success in Flanders as, for instance, in the Netherlands (Declercq et al., 2009; see also Chapter 6 of this dissertation). While the first nursing homes realising the concept received, for instance, financial support from the government, this was not always the case for the nursing homes realising NSSL thereafter. It seems, however, that since 2009 an increasing number of nursing homes have become small and normalised. There are two reasons for this. First, thanks to financial support from the Flemish Infrastructure Fund for Personal Affairs (VIPA), many nursing homes were renovated in recent years. This government support is important because it gives nursing homes the opportunity to apply a new residential concept, such as normalised small-scale living. We must acknowledge, though, that this support has been withdrawn since January 2014 (Vlaams Infrastructuurfonds voor Persoonsgebonden Aangelegenheden, 2013). Second, the Flemish Government issued a fire safety decree in 2011, which states that nursing homes should consist of sub-compartments with no more than 20 residents present at night (Vlaamse Regering, 2011). This number of residents, as seen in the concept of normalised small-scale living, limits the maximum number of inhabitants per living unit.

The next sections outline characteristics of the Flemish care system, in order to situate the empirical findings of this dissertation concerning the Flemish care system. This makes it possible to outline whether and how the findings may be valid in other care systems. Flemish nursing homes are typically small organisations with a limited number of residents. The mean number of beds in nursing homes in Flanders is 94 (Pacolet & De Coninck, 2015). They are also not usually part of a larger care group,

which is exemplified by data from Pacolet and De Coninck (2015) indicating that a total of 398 local nursing homes were owned by 494 organisations in 2012. Residents in Flanders pay a daily price for the care given in the nursing home. In total this is 37.6 percent of the total operational income of a nursing home (Pacolet & De Coninck, 2015). The government subsidises most of the other costs.

Nursing homes in Flanders need to employ a minimum number of staff members per group of residents. This number is based on residents' care needs and on the type of accreditations given by the government to the nursing home (an extensive outline on the staffing levels would be beyond the scope of this dissertation, which focuses on the quality of working life in nursing homes; for a detailed overview of all official staffing levels in Flanders and Belgium, see: Pacolet & De Coninck, 2015). Nursing homes, which do not employ the minimum number of staff members, lose their accreditations and related financial support from the government. Table 3 shows the minimum staffing levels for nursing homes in Flanders. Important to note is that nursing homes often employ more staff members than these minimum numbers require. Public nursing homes employ an additional 40.4% staff members, non-for profit 17.3% and the for-profit 15.8% (Pacolet & De Coninck, 2015).

Table 3. Official minimum staffing levels in Flanders per 30 residents in 2018

Employee categories	**Nursing home for residents with low care needs**	**Nursing home for residents with high care needs**
Manager	1 per care facility	1 per care facility
Nursing staff	5 FTE, minimum 2 FTE nursing staff	5 FTE, from which one head nurse
Care assistants		5 FTE
Physiotherapist, speech therapists, ergotherapy	/	1 FTE
Staff for reactivation	/	0.1 FTE
Cleaning and kitchen staff	2 FTE	/
Animation	1 FTE (starting from 120 residents, + 0.25 FTE per 30 additional residents)	/

Source: Pacolet & De Coninck, 2015

Care in nursing homes is organised differently across European regions and countries. There is a need for studies, which compare nursing home care across countries. Studies, which compare nursing home care across countries, (a) were published more than a decade ago (see: Meijer et al., 2000), (b) are only explaining the different care systems without comparing them to each other systematically (see: Pacolet et al., 2018), or (c) use data, which are not specific enough for nursing home care, since other care sectors are also included (see: Organisation for Economic Co-operation and Development, 2017a).

Table 4 compares nursing home care across European countries and regions. The data presented is not always only about the nursing home care sector, but it gives a indication on how the care system in Belgium/Flanders differs from other European countries and regions. It was opted to compare Belgium/Flanders with the neighbouring countries (France, Germany, The Netherlands and Luxembourg) as well as United Kingdom (as a Anglosaxon welfare state), Spain (as a Southern welfare state), Sweden (as a Nordic welfare state) and Poland (as an Eastern welfare state). In this way the care situation in Belgium/Flanders is also compared with other welfare state regimes (Esping-Andersen, 2013). It is shown that Belgium has a similar percentage of the population that is over 65 years old as the other countries (EUROSTAT, 2017), but that it has the highest percentage of elders within institutional care (Organisation for Economic Co-operation and Development, 2018) and the second highest number of nursing and elderly beds per 100.000 inhabitants (World Health Organisation, 2018). Belgium takes a median role when looking at the percentage of formal long-term care workers in institutions in relation to the total population of 65 years old and older (Organisation for Economic Co-operation and Development, 2018). This also applies to the public spending on long-term care as a percentage of the GDP (Organisation for Economic Co-operation and Development, 2017b). Few nursing homes in Flanders are privately owned, most of the nursing homes are non-for profit. In March 2017, 56 per cent of nursing homes had a not-for-profit status, 27 per cent was public, and 17 per cent had a for-profit status (Agentschap Zorg & Gezondheid, 2017).

Table 4. Organisation and supply of nursing home care across selected European countries and regions in 2014

		Belgium/Flanders	France	Germany	Luxembourg	The Netherlands	United Kingdom	Spain	Sweden	Poland
% of population over 65 years of age		18.5[BE, 2017]	19.2[2017]	21.2[2017]	14.2[2017]	18.5[2017]	18.1[2017]	19.0[2017]	19.8[2017]	16.5[2017]
% of population aged 65 years old and over within institutional care		8.8[BE, Est.]	4.3	4.4	5.3	5.5	/	1.8	4.5	0.8
No. of nursing and elderly beds per 100.000 in the population		1232[BE, 2012]	1001	1120[2013]	997[2015]	1062[2012]	854	697[2013]	1276	180
% of formal long-term care workers in institutions for total population aged 65 years old and over		2[BE, 2009]	1.5 [2011]	2.4	4.6	/	/	/	/	/
Public spending on long-term care as a % of GDP		2.2[BE]	1.9	1.1	1.3	4.3	1.2	0.7	3.2	0.3
% ownership status	For-profit	17[VL, 2017]		/	/	/	86.3	/	18-19	/
	Non-for profit	56[VL, 2017]	/	/	/	/	8.1	/	2-3	/
	Public	27[VL, 2017]	/	/	/	/	6.0	/	79.1	/

Legend: 'BE' means data of Flanders; 'VL' means data of the Flemish region in Belgium; 'Est.' means an estimation of the percentage.

Source: Agentschap Zorg & Gezondheid, 2017; EUROSTAT, 2017; Harrington et al., 2017; Organisation for Economic Co-operation and Development, 2017a; Organisation for Economic Co-operation and Development, 2017b; World Health Organisation, 2018.

3.2.2 Selection of research data

Chapters 4 and 5 reviewed empirical studies on the quality of working life of care workers in NSSL nursing homes. The review findings detail the benefits and pitfalls pertaining to the quality of working life of care workers in NSSL nursing homes. Both research chapters also explain which inclusion and exclusion criteria were used to select the relevant studies.

Chapters 6, 7 and 8 examine how the quality of working life issues in NSSL might be resolved and how the conflicting results across different studies could be explained. Field data, related to organisational structures in NSSL nursing homes, was collected to that end. The following data was collected for these chapters: interviews with managers and care workers, focus group data, site observation notes, care workers' daily walking distances and administrative data.

The research chapters of this dissertation represent a selection of the data collected as part of the overall dissertation project. This can be seen from the total number of collected surveys, conducted interviews and observation days. In total, 1150 questionnaires were collected, with 54 of these analysed for this dissertation (see: Chapter 8). 255 observation hours were completed, with the observation notes for 180 hours analysed for this dissertation (see: Chapter 8). Lastly, 38 out of the 93 interviews with care workers and nursing home managers (see: Chapter 6, 7 and 8) were analysed for this dissertation. The data (and the related analyses of this data) not reviewed in this dissertation offers further solutions for quality of working life issues in NSSL, or further explains the conflicting results across the reviewed studies. It was opted, however, not to include these study findings, since the research chapters included in this dissertation are the most coherent. The other data is being analysed and papers are being written, but the stages of these papers are not advanced enough to be included in this dissertation. The research chapters that are included all focused on NSSL and linked this concept to the quality of working life of care workers.

3.2.3 Selection of instruments

Both existing and new instruments were used to collect field data in this dissertation. The next paragraphs provide a brief overview of the instruments that were used. First, semi-structured (topic) interviews with managers and care workers were conducted. Semi-structured interviews provide guidance but are not coercive, which makes it possible to collect retrospective and real-life data (Gioia et al., 2012). The topics discussed in the interviews with the managers included enablers and barriers to the introduction of small-scale living, and organisational design of nursing homes and their impact. The data that was collected in these interviews is discussed in Chapters 6, 7 and 8. The interviews with care workers centered on the thirteen quality of working life dimensions – completeness, complexity, emotional demands, predictability, qualitative work overload, repetitiveness, time pressure, variability,

job autonomy, organising tasks, supply of information, support from peers, and support from supervisors. The data that was collected in these interviews is discussed in Chapter 8.

Second, this dissertation used the 'Dutch instrument for workplace analysis' (Projectgroep WEBA, 1989) and the job contents checklist (Kompier & Marcelissen, 1995) in order to collect observational information on the quality of working life of care workers'. The 'Dutch instrument for workplace analysis' was developed at the request of the Dutch government for the purpose of detecting job-related health risks. This instrument uses an expert approach to measure quality of working life, where trained experts visit organisations and observe workers to identify health risks, which are subsequently scored quantitatively. There are two important disadvantages in using this instrument. First, it leaves little space to write down observational notes next to the scores and it does not include all the quality of working life dimensions outlined in Figure 4. The observation instruments were, therefore, adapted and a new instrument was developed that included all the quality of working life dimensions presented in Figure 4, and that also included space to write down research notes. The data that was collected both with the existing and the adapted observation instruments is discussed in Chapter 8.

Third, the Nova-Weba-Flasy survey was used to measure the quality of working life of care workers. In 2000, the 'Dutch instrument for workplace analysis' was translated into a quantitative survey (Dhondt, 1993; Dhondt & Houtman, 1992) because previous studies had discovered a low inter-rater reliability. Experts did not evaluate the same jobs in a similar manner (e.g. Delarue, 2003). In the survey, employees assigned to a particular job were seen as experts able to rate their own job. The dimensions of quality of working life were converted into several items by way of a number of Yes/No statements. In 2014, Van Hootegem and colleagues (2014) translated these Yes/No statements into statements with five-answer scales, from "totally do not agree" to "totally agree", and adding the scales of variability, predictability, time pressure, and complexity. This final survey instrument was termed the 'Nova-Weba-Flasy'. The data collected with this survey instrument is presented in Chapter 8.

Fourth, the pedometer 'Omron Walking Style HJ-320' was used to assess the walking distances of care workers. This instrument has been validated in previous studies (e.g. Park et al., 2014). The walking distances are measured in metres and the number of steps was calculated for every participating care worker.

3.2.4. The Gioia Methodology: a systematic and inductive research approach

The qualitative data collected in this dissertation is analysed by means of the Gioia Methodology (see Chapters 6, 7 and 8). The method is commonly used in the domain of organisational studies (Gehman et al., 2017) and was developed as a reaction to calls of qualitative researchers to increase the standards and rigor of inductive research approaches (Gioia et al., 2012). In the research chapters the Gioia Methodology is only outlined briefly. Therefore, the method is explained in more detail in this section.

The other methods used in the dissertation are outlined in the research chapters itself. The next paragrahps outline how the data is coded and how the findings of the method are shown in the finding sections.

The qualitative data is all transcribed and coded; this reduces data complexity and brings forth new insights in the data structure (Charmaz, 2006). The coding can be seen as an iterative process in two manners. On the one hand, the PhD candidate read all of the data and proposed an initial coding, which was checked by at least one coauthor of the research chapter. On the other hand, the coding process was moved between empirical data and theory (Gioia et al., 2012), i.e. a move from narratives to theoretical concepts.

The coding process is conducted in three steps. The *first step* takes account of the voice of the interviewee. The candidate coded the text, while the codes adhered to the respondents' terms. This process of coding led to a high number of categories, which were then subsequently compared to find similarities and differences. This comparison reduced the number of categories, since a number of 'first-order' codes were identified. Importantly, these also represent the expressions of the interviewees. The candidate made thus tremendous efforts to make sure that informants' voices are reported in this first step of this study. The *second step* takes account of whether concepts can explain or describe the phenomenon of interest. These concepts or 'second-order' codes do not need to be embedded within an existing theoretical framework. Here, the researchers should also build a data structure including the full set of 1st and 2nd order codes. This structure is key to show how the analysis went from raw data transcripts to codes and concepts. Gioia et al. (2012) paraphrase it as follows: 'no data structure; know nothing'. Sections 6.3.4 and 8.3.2.2 show the data structures of the analyses conducted with the Gioia-Methodology. The *third step* brings the existing literature on the phenomenon to the foreground, since it defines aggregate dimensions of the 'second-order' codes. Data and existing theory are here considered simultaneously to understand whether the knowledge created in the analyses add to the existing literature.

The findings of an analysis based on the Gioia-methodology have to be written narratively (Gioia et al., 2012). Gioia et al. (2012) mention that 'the intent of the finding section is to narrate an informative story that is driving toward some new concept development and theoretical discovery'. The finding section should, therefore, focus on the innovative insights generated from the analysis or could explain each 'second-order' code or aggregate dimension. The quotes mentioned in the finding section are informative and have to be in line with the data structure, which is also shown. Readers should thus have the opportunity to relate the quotes to the data structure presented in the method section.

3.3 Methodological outline of the chapters: the different stages of the research

This section briefly outlines the study objective, research design and data collection of the five individual research chapters. This is discussed in further detail in each chapter. It is also shown here how the data collection processes in stage 1 (chapters 4 and 5) has influenced the data collection processes in stage 2 (chapters 6, 7 and 8).This is also shown with the grey arrows in Figure 9.

Stage 1 includes Chapter 4 and Chapter 5, which overview studies on the quality of working life of care workers in NSSL nursing homes, comparing it to that of workers in conventional nursing homes. While Chapter 4 includes all **empirical and international studies** on this topic, Chapter 5 only includes **empirical studies in Flanders** on the quality of working life of care workers. Both chapters review the qualitative, quantitative and mixed-methods studies. Similar results were found in the two chapters, underlining the credibility of the study findings.

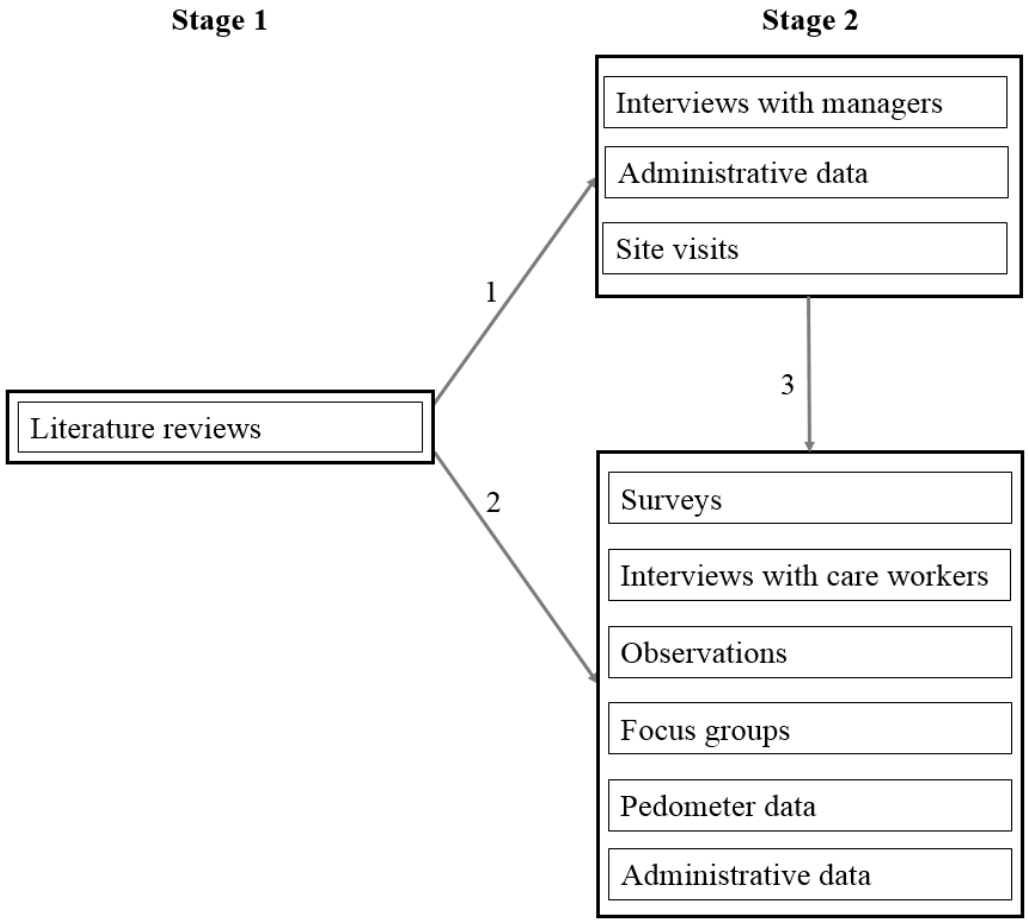
Stage 2 includes Chapter 6, Chapter 7 and Chapter 8, which are all comparative case studies that use multiple methods to explain the review findings of Chapters 4 and 5. Chapters 6 and 7 compare 20 NSSL nursing homes. **Interviews with managers, administrative data, and site visits** are reviewed to show and explain the practice variation of the NSSL across nursing homes (Chapter 6), and to outline the existence and consequence of different work divisions in NSSL nursing homes (Chapter 7). Both chapters use a convergent mixed-methods design (see: Creswell & Clark, 2018) since the interview data was primarily examined, while the other data was used to validate and supplement the interview data.

Chapter 8 compares working in two cases: those in purpose built small houses and those in an adapted, hospital-like built environment with resident rooms located on both sides of a long hallway. Data on the quality of working life of care workers was collected through **employee surveys, interviews with managers and care workers, site observations, focus groups, administrative data and the daily walking distances** of care workers. Qualitative data was analysed in two rounds (2016 and 2017) and this for two reasons: exploration prior to quantitative analysis and explanation after quantitative analysis. Two mixed-methods research designs were thus combined in this chapter: an exploratory mixed-methods design and an explanatory mixed-methods design (Creswell & Clark, 2018).

The findings of the data collection in the two stages of this dissertation influenced each other. The findings of the two literature reviews (see: Chapters 4 and 5) in stage 1 affected the data collection process of stage 2. It was found that some NSSL nursing homes had more quality of working life issues than others. This finding influenced the following data collection process in stage 2 in two ways (see: arrows 1 and 2 in Figure 9). First, stage 2 started with examining whether there is variation in twhat way NSSL is realised across nursing homes (see: Chapter 6). This could namely be an explanation for quality of working life differences across NSSL nursing homes. Interviews with managers, together with administrative data and site visits, were conducted to outline practice variation. Second, stage 2 examined the presence of variation in organisation designs (see: Chapter 7) and architecturel settings

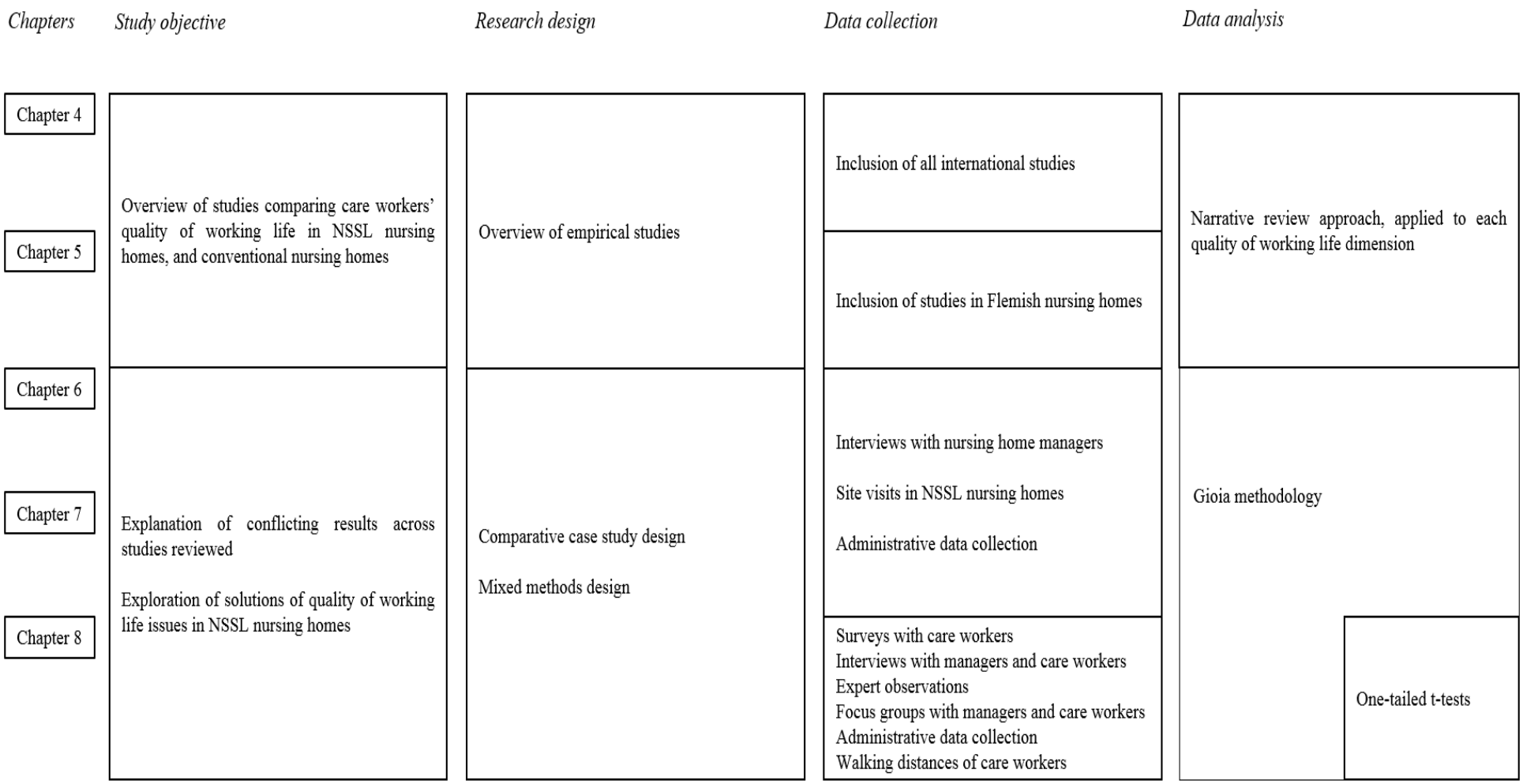
(see: Chapter 8) across NSSL nursing homes. This was especially of interest, since it was found in chapter 6 that practice variation exists in NSSL nursing homes (see: arrow 3 in Figure 9). It was outlined that variation in organisation designs and architecturel settings explain differences in the quality of working life of care workers.

Figure 9. Visual representation of the stages of the mixed methods design



Legend: the grey arrows represent the influence that data collection processes have on each other.

Figure 10. Outline of methods used in each research chapter



Source: own illustration, based on the data presented in Chapters 4 to 8.

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CHAPTER 4. A COMPARISON OF WORKING IN SMALL-SCALE AND LARGE-SCALE NURSING HOMES: A SYSTEMATIC REVIEW OF QUANTITATIVE AND QUALITATIVE EVIDENCE

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Abstract

Background and objective: Ongoing shortages of care workers, together with an ageing population, make it of utmost importance to increase the quality of working life in nursing homes. Since the 1970s, normalised and small-scale nursing homes have been increasingly introduced to provide care in a family and homelike environment, potentially providing a richer work life for care workers as well as improved living conditions for residents. 'Normalised' refers to the opportunities given to residents to live in a manner as close as possible to the everyday life of persons not needing care. The study purpose is to provide a synthesis and overview of empirical research comparing the quality of working life - together with related work and health outcomes - of professional care workers in normalised small-scale nursing homes as compared to conventional large-scale ones.

Design: A systematic review of qualitative and quantitative studies.

Data sources: A systematic literature search (April 2015) was performed using the electronic databases Pubmed, Embase, PsycInfo, CINAHL and Web of Science. References and citations were tracked to identify additional, relevant studies.

Review methods: We identified 825 studies in the selected databases. After checking the inclusion and exclusion criteria, nine studies were selected for review. Two additional studies were selected after reference and citation tracking. Three studies were excluded after requesting more information on the research setting.

Results: The findings from the individual studies suggest that levels of job control and job demands (all but "time pressure") are higher in normalised small-scale homes than in conventional large-scale nursing homes. Additionally, some studies suggested that social support and work motivation are higher, while risks of burnout and mental strain are lower, in normalised small-scale nursing homes. Other studies found no differences or even opposing findings. The studies reviewed showed that these inconclusive

findings can be attributed to care workers in some normalised small-scale homes experiencing isolation and too high job demands in their work roles.

Conclusion: This systematic review suggests that normalised small-scale homes are a good starting point for creating a higher quality of working life in the nursing home sector. Higher job control enables care workers to manage higher job demands in normalised small-scale homes. However, some jobs would benefit from interventions to address care workers' perceptions of too low social support and of too high job demands. More research is needed to examine strategies to enhance these working life issues in normalised small-scale settings.

4.1 Background

The United Nations (2015) project that between 2015 and 2100 the proportion of the population older than 64 years will double relative to those aged between 15 and 64, in both the United States and Europe. In the United States there were 22 individuals aged 65 and over for every 100 persons between 15 and 64 in 2015, this number of individuals will increase to 48 in 2100. In Europe this number will rise from 26 to 53. Although a majority of elderly people are cared for at home, an increasing number will be living in nursing homes (Willemse et al., 2014). As a consequence, the demand for care for the elderly will rise, whilst the working population decreases. These projections indicate a potential shortage of formal caregivers in nursing homes in the future. This necessitates consideration of how workers can be attracted to join, and remain within caregiving professions, which is not straightforward. A number of studies have revealed that nursing can be a stressful job (Kirkcaldy and Martin, 2000; Tyler and Cushway, 1998), with an associated risk of burnout and decreased work motivation leading to higher turnover rates (Clegg, 2001; Kirkcaldy and Martin, 2000). In short, the challenging nature of care-giver roles may exacerbate potential labour shortages associated with demographic change. Designing less stressful jobs for healthcare workers is therefore paramount for mitigating future labour shortages in the nursing home sector.

Stress in nursing roles can be explained by three types of psychosocial risk factors: job demands, job control, and social support (McGrath et al., 2003; Schmidt and Diestel, 2011). Job demands are defined as the psychological stressors involved in fulfilling a workload (Karasek, 1979). Job control refers to the authority that employees possess regarding their work-related tasks and how they behave (on the job) (Karasek, 1979). Social support takes account of interaction with supervisors and co-workers in the workplace, assistance received with work-related tasks, and the extent of workplace isolation (Johnson and Hall, 1988; Landsbergis, 1988). Following Hackman and Oldman (1975), Karasek and Theorell (1990), and Van Hootegem et al. (2014), we defined quality of working life based on these three psychosocial risk factors. We also took account of related work and health outcomes such as burnout (Bakker et al., 2005), work engagement (Bakker et al., 2007), and work-related strain (Karasek, 1979). The job demands-control(-support) model argues that a high level of job control and high social support reduce the risk of stress in roles with high job demands (Johnson and Hall, 1988; Karasek and Theorell, 1990; Landsbergis, 1988). In contrast, imbalance between levels of job demands, control and social support (e.g. high job demands, low job control and low social support) can increase the risk of work-related stress (Karasek and Theorell, 1990). This can, in turn, cause an increased likelihood of burnout, and decreased work engagement (Mauno, et al., 2007; Willemse et al., 2012; Xie et al., 2011). Giving health care workers highly-quality jobs therefore requires a balance between job demands, job control, and social support.

Normalised living was first introduced in long-term care facilities for psychiatric patients during the 1950s, when residents were given the opportunity to live in a manner as close as possible to everyday

life (Nirje, 1992). In the 1970s, the idea of normalisation was introduced into elderly care (Wolfensberger, 1978). In most nursing homes, this translated in combining normalised with small-scale living, with a limited number of residents living together in small units (e.g. Declercq et al., 2009; Dettbarn-Reggentin, 2005; Malmberg and Zarit, 1993; Nakanishi et al., 2012; Rabig et al., 2006; Te Boekhorst et al., 2008). The combination of normalised with small-scale living creates a family and homelike environment for residents and was established in a number of countries, exemplified by, for instance, group homes in Japan (Nakanishi et al., 2012), Green Houses or Eden Houses in the United States (Rabig et al., 2006), Wohngruppen in Germany (Dettbarn-Reggentin, 2005), normalised small-scale homes in Belgium (Declercq et al., 2009), as well as group living in Sweden (Malmberg and Zarit, 1993) and the Netherlands (Te Boekhorst et al., 2008).

In this study the opposite of - and alternative to - normalised small-scale home is defined as non-normalised large-scale home. Importantly, the terms 'small-scale' and 'large scale' do not refer to the total number of residents in a home, but rather to the number of residents at the lowest organisational level: the living unit. Non-normalised large-scale homes therefore have large living groups (Van Audenhove et al., 2003; Verbeek et al., 2009; Zeisel et al., 1994). Typically, resident rooms are located along long hallways (Den Holllander, 2009), with centralised basic facilities such as catering and laundry, in which the involvement of the residents is limited (Declercq, 2009). These characteristics make it difficult to maintain a full range of everyday activities, and to create a homelike atmosphere.

From an employee perspective, a number of studies have looked at the quality of care workers' working life in normalised small-scale homes (Edvardson et al., 2009; Suzumura et al., 2013; Wångblad et al., 2009). These studies identify relationships between job demands, job control, social support, and work and health outcomes in normalised small-scale living environments that are consistent with the general literature on the quality of working life (Karasek, 1979). For example, care workers in normalised small-scale homes experience high time pressure, high work load and conflicting work demands (Edvardson et al., 2009). These need to be compensated by high social support (Wångblad et al., 2009) and high job control (Te Boekhorst, 2008) to mitigate high turnover (Suzumura et al., 2013). However, these findings do not reveal how the quality of working life in normalised small-scale homes compares to that in non-normalised large-scale homes. To address this question, studies comparing both settings under similar conditions are essential, because they can illuminate whether care workers experience a higher or lower quality of working life in normalised small-scale homes, relative to non-normalised large-scale homes.

Currently a number of international studies have compared the quality of working life in normalised small-scale homes and non-normalised large-scale homes. However, these studies either examine different outcomes or produce conflicting findings regarding the same outcomes. These inconsistencies prompted this review, which provides an overview of the findings of studies that compare working life in both care settings. A better understanding of the factors contributing to a high quality of working life is of utmost importance, given the ageing demography of Western countries, and the plausibility of

future labour shortages among health care workers. The provision of healthy and rewarding work environments within the care sector will enable both the sector as a whole, as well as individual care homes, to attract new employees and retain experienced ones – providing a basis for a skilled and sustainable workforce.

4.2 Aim of study

The aim of this study is to provide a systematic overview of what is known from previous research comparing the quality of working life of care workers in normalised small-scale homes and non-normalised large-scale homes.

4.3 Methods

4.3.1 Search strategy

A systematic review was conducted. Three selection methods were used to identify relevant articles. First, five electronic databases were purposively selected and searched for references in April 2015: PubMed, Embase, the Cumulative Index to Nursing and Allied Health Literature (CINAHL), PsycInfo and Web of Science. Time constraints were not imposed on the search, meaning that the full range of potential studies in the databases were considered. In total, 11,335 Boolean configurations of search terms were explored in the respective databases. Each configuration consisted of a combination of three search terms. The first search term was a synonym for 'nursing home', while the second was a synonym for 'normalised small-scale homes'. The third term was related to 'job demands', 'job control' or 'social support'. To ensure exhaustive coverage, the third term could also be a work or health outcome related to these psychosocial risk factors. The total list of search terms is available in Appendix 1. In the second stage of selection, the reference lists of selected studies were screened to identify potential additional studies. Finally, references of studies selected were tracked in Google Scholar as an additional step in the literature selection.

4.3.2 Inclusion and exclusion criteria

To be incorporated in the review, studies needed to meet the two following inclusion criteria:

Studies needed to be original empirical studies, which investigate job demands (i.e. emotional demands, job completeness, job variability and time pressure), job control (i.e. job autonomy), and social support (i.e. peer support, social support from supervisors and supply of information), or their work and health

outcomes (i.e. burnout, work motivation and mental strain) in formal care jobs. Appendix 2 gives the definitions of all subdimensions of social support, job demands, and control.

Studies needed to compare normalised small-scale and non-normalised large-scale nursing homes. This could either involve comparing normalised small-scale and non-normalised large-scale nursing homes or examining organisations that implemented normalised small-scale homes.

Studies, which did not meet the inclusion criteria were excluded from the review. In addition, a further exclusion criterion was adopted, defined by the number of residents per unit. Following Van Audenhove et al. (2003), Verbeek et al. (2009), and Zeisel et al. (1994), we considered normalised small-scale homes to have a maximum of 15 residents per unit. Where the number of residents was not clearly specified, the review team contacted the first author of the article. This occurred in four instances.

4.3.3 Analysis method: quality assessment, data extraction and synthesis

4.3.3.1 Quality assessment

Once the studies were selected two researchers critically appraised them, independent of each other. Appraisal was premised upon the 'Qualitative Assessment and Review Instrument' (Hannes et al., 2010) and the 'Quality Assessment Tool for Quantitative Studies' (Thomas et al., 2004). As is evident from Appendix 3 and Appendix 4 in the supplementary materials, there was high inter-rater reliability in quality assessment. This was also supported by the high scores on the Cohens Kappas: 0.81 for the qualitative studies and 0.79 for the quantitative studies.

4.3.3.2 Data extraction

The findings of the selected studies were extracted in two stages, using standardised data-extraction forms. In the first stage, the following study characteristics were collated: country of study, methodology, nursing home information and participant information. We considered (1) whether the studies had a quantitative, qualitative or mixed-method approach, (2) the number of measurement occasions, (3) the data collection method, (4) whether the study had a comparative approach or examined the move from a non-normalised large-scale home towards a normalised small-scale home, (5) the number of residents per small-scale unit, (6) the number of homes and units studied, (7) the number of participants, (8) the participants' professions, (9) the participants' mean age, and (10) the gender distribution among participants.

In the second stage of data extraction, comparative data on care workers' experiences of quality of working life and related work and health outcomes were coded and fitted in a standardised table. The

findings are integrated in the text in the results section as well as in Figure 11. We grouped the extracted data per theme, according to the three main quality of working life dimensions (i.e. job demands, job control and social support) and related work and health outcomes. Possible explanations given by care workers and authors were also extracted.

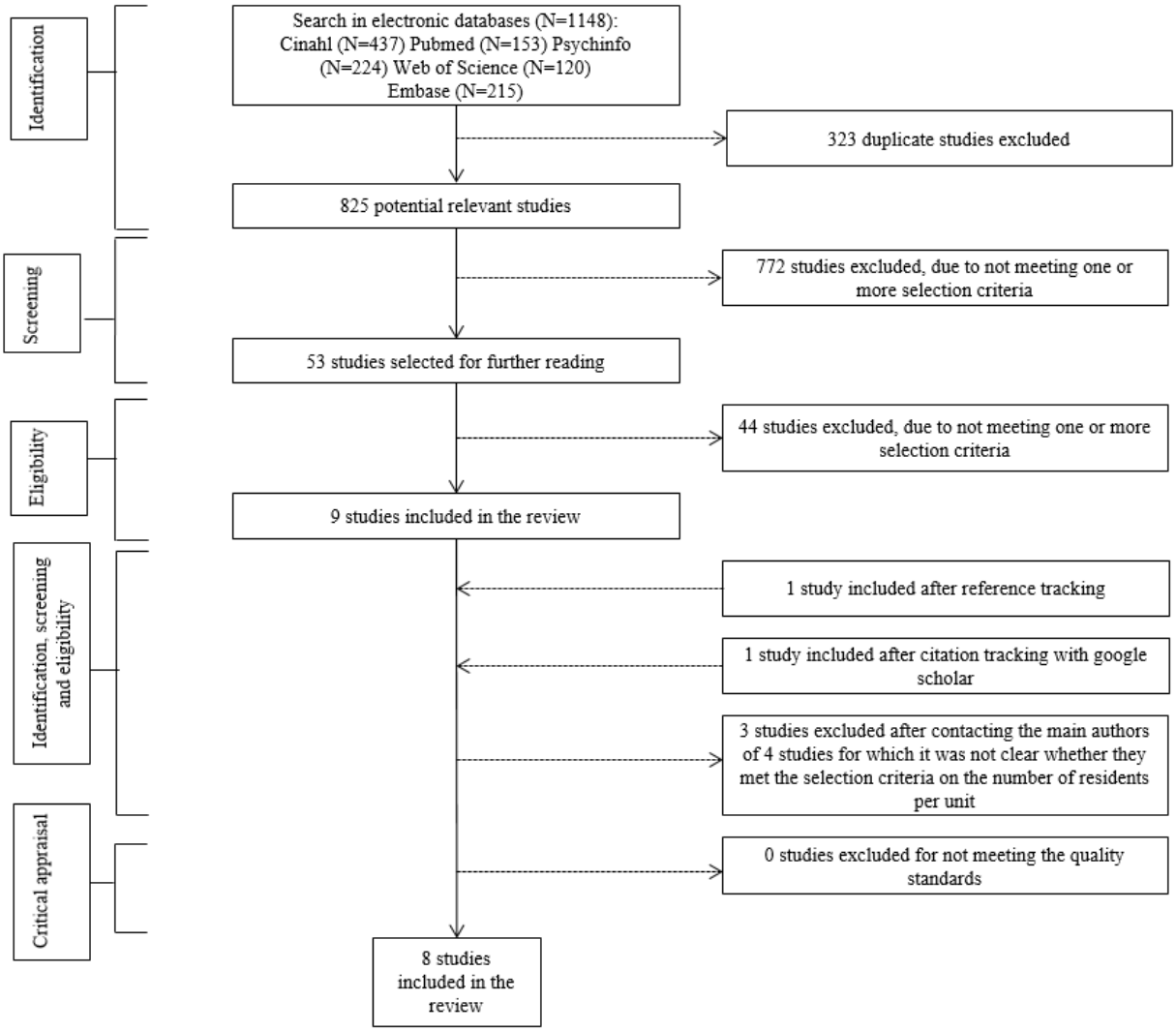
4.3.3.3 Data synthesis

Because of high heterogeneity on the quality of working life dimensions considered across the selected studies, neither a meta-synthesis of the qualitative studies nor a meta-analysis of the quantitative studies was possible. Therefore, the findings are synthesised using a narrative review approach, applied to each quality of working life dimension (job demands, job control and social support), and the related work and health outcomes

4.4 Results

1148 publications were selected from five electronic databases. By reviewing the titles and the abstracts, an initial selection of 53 studies was made. An in-depth reading of these studies resulted in a list of nine eligible studies. After reference tracking, one more relevant study was added. One additional article was selected by searching all the articles in Google Scholar that refer to these initial ten articles. After clarification by the lead author, three articles were excluded due to the uncertainty of the number of residents within the living unit. The critical appraisal did not withhold any (of the selected) studies because any observed shortcomings did not invalidate the study findings. The final review included eight studies. Figure 11 shows the flow chart of the search strategy.

Figure 11: Flow chart of the search strategy



4.4.1 Study characteristics

An overview of the studies selected, the country of study, the publication date, the methodology used, information on participants and nursing homes studied, and the conditions studied is provided in Table 3. A summary for each characteristic is provided in the next sections.

4.4.1.1 Country of study and publication date

The selected studies conducted research in four countries: Belgium, the Netherlands, Sweden and the United States. This country diversity increases the reliability of the findings of this review, because findings were studied in different settings. Moreover, only the study by Kuremyr and colleagues (1994) was published before 2008, underlining the relatively recent interest in the quality of working life of care workers in normalised small-scale vs. non-normalised large-scale settings.

4.4.1.2 Methodology

Four studies only used a quantitative research methodology, two studies only used a qualitative research approach, two studies combined quantitative and qualitative research methods. Six studies used employee surveys to measure the quality of working life, while two studies combined surveys with in-depth interviews. Both studies, which only applied qualitative methods, used in-depth interviews and participant observations. One of these studies also used focus groups. Seven studies were comparative studies, one study examined care workers experiences after a move from a non-normalised large-scale home towards a normalised small-scale home. Three studies had two or more measurement occasions, four studies had only one measurement occasion.

4.4.1.3 Information on nursing homes and participants

The normalised small-scale homes studied had between 4 and 15 residents per living unit. While some studies investigated the quality of working life in not more than two units, other studies examined multiple units, up to a maximum of 63. The number of participants in the studies varied from 5 to 380. The mean age of participants for the studies ranged from 38 to 42 years, and the majority of participants in all studies were women. Seven studies were conducted in units for residents with dementia; only the study of Loe and Moore (2012) did not provide any information on the type of residents.

4.4.1.4 Studied outcomes

The studies reviewed examined job demands, job control, social support, as well as work and health outcomes. Table 5 notes that three studies only included one out of these four studied outcomes, two studies examined two outcomes, two studies looked at three outcomes and one study examined all four outcomes.

Table 5: Articles reviewed and their characteristics

Authors (Year)	Country of study	Methodology							Information on studied nursing homes		Participant information	Studied outcomes			
		Quantitative	Mixed-Method	Qualitative	Data collection method	Quasi-experimental design: One group post-test only	Quasi-experimental design: Two group post-test only	Number of occasions measured: 1	Number of occasions measured: 2 or more	Number of residents per unit in normalised small-scale homes	Studied nursing homes setting		Job demands	Social support	Job controls	Work and health outcomes
Te Boekhorst et al. (2008)	The Netherlands	X			Surveys		X	X		4-6 residents	Small-scale setting: 56 units in 19 homes Large-scale setting: 17 units within 7 homes Type of residents: dementia	Participants: 380 nurses Mean age: 40 years a Gender: 355 women and 25 men a	X	X	X	X
De Rooij et al. (2012)	The Netherlands and Belgium (Flanders)	X			Surveys		X		X	6 and 15 residents per unitb	Small-scale setting: 12 units Large-scale setting: 4 units Type of residents: dementia	Participants: 80 professional care workers Mean age: 42 years a Gender: 74 women and 6 men a				X
Kuremyr et al. (1994)	Sweden		X		Surveys and in-depth interviews		X		X	6-8 residents	Small-scale setting: 1 unit Large-scale setting: 4 units within 1 home Type of residents: dementia	Participants: 20 with care workers Mean age: not provided Gender: 19 women and 1 men a				X
Loe and Moore (2012)	United States			X	In-depth interviews, focus groups and participant observations	X		X		12 residents per unit b	Small-scale setting: 16 units within 1 home Type of residents: not provided	Participants: 20 certified nursing assistants Mean age: not provided Gender: not provided	X		X	X

Van Beek et al. (2011)	The Netherlands	X		Surveys		X	X		Average of 12 residents per unit	Small-scale setting: 11 units Large-scale setting: 26 units Type of residents: dementia	Participants: 380 nursing employees Mean age: 38 years Gender: 361 women, 19 men a	X	X	X		
Van Zadelhoff et al. (2011)	The Netherlands		X	In-depth interviews and participant observations	X		X		10 residents per unit	Small-scale setting: 2 units Type of residents: dementia	Participants: 5 nursing employees Mean age: not provided Gender: not provided					X
Verbeek et al. (2010)	The Netherlands	X		Surveys		X		X	At most 8 residents per unit	Small-scale setting: 28 units Large-scale setting: 21 units Type of residents: dementia	Participants: 305 professional care workers Mean age: 42 years a Gender: 280 women and 25 men a					X
Verbeek et al. (2012)	The Netherlands		X	Surveys and in-depth interviews		X	X		At most 8 residents per unit	Small-scale setting: 28 units within 5 homes Large-scale setting: not provided Type of residents: dementia	Participants: 320 nursing employees Mean age: 41 years a Gender: 292 women and 28 men a	X	X	X		

Legend: a: Calculated based on data of study.

b: Main author was contacted to request this information. This information was crucial for inclusion in the review (see section 4.3.2).

4.4.2 Findings of relevant studies

This results section is divided into four sections for revision (1) job demands, (2) job control, (3) social support, and (4) work and health outcomes. Each section summarises the findings of qualitative, quantitative, and mixed-method studies. Moreover, one quote from one of the considered studies is provided in each section, to illustrate the care workers' experience of work. Figure 12 summarises the findings.

4.4.2.1 Job demands

Four job demands were studied: 'emotional demands', 'job completeness', 'job variability' and 'time pressure'. First, one comparative study showed that health care workers in small-scale units are emotionally more involved with residents than care workers in traditional homes (Verbeek et al., 2012). The study of Loe and Moore (2012) confirmed this finding by showing that emotional demands increase when normalised small-scale homes were implemented. Loe and Moore (2012) provide one possible explanation, suggesting that care workers spend more time with residents in normalised small-scale settings and therefore know the residents and their family better. As a result, emotional demands increase when a resident becomes ill or dies. Loe and Moore (2012) provide illustrative quotes, such as the one below, in support of their suggestion:

> I get attached to a lot of the residents. (…) I used to spend so much time with this one woman. That was tough when she died; real tough. (Loe and Moore, 2012, p. 760)

Second, the study of Loe and Moore (2012) noted that job completeness and job variability increase for care workers in nursing homes, which had implemented normalised small-scale units. Moreover, a comparative study showed that job completeness is higher in normalised small-scale homes than in non-normalised large-scale homes (Van Zadelhoff et al., 2011). A possible explanation that Loe and Moore (2012) give is that care workers in normalised small-scale settings fulfil caregiving tasks as well as housekeeping tasks, from doing dishes to cooking. The following quote may support this:

> Here [normalised small-scale home] you have to do everything. (Verbeek et al., 2012, p. 27)

Third, all studies found that time pressure is lower in normalised small-scale homes than in non-normalised large-scale homes (Loe and Moore, 2012; Te Boekhorst et al., 2008; Van Zadelhoff et al., 2011; Verbeek et al., 2012). Four possible explanations were found in the studies reviewed. (1) Van Zadelhoff et al. (2011) argued that taking care of small groups of residents in normalised small-scale homes lead to lower workloads for care workers, because care workers have to take care of fewer residents. (2) Loe and Moore (2012) showed that in non-normalised large-scale settings temporary solutions are more frequent, potentially leading to an increasing number of tasks because tasks may not be completed satisfactorily and have to be repeated after a while. (3) Loe and Moore (2012) found that

in normalised small-scale settings residents have to take part in everyday life, in non-normalised large-scale settings residents became greatly dependent on outside assistance. Therefore, residents might help care workers in small-scale settings to do for instance the dishes, this lead to a lower workload for care workers. (4) Verbeek et al. (2012) outlined that due to higher autonomy in normalised small-scale settings (see next section), care workers can structure their day, spreading the workload over the whole day. However, it has to be noted that care workers in normalised small-scale settings often indicate that there is insufficient staff coverage, relative to comparable non-normalised large-scale homes (Verbeek et al., 2012). Because staff/resident ratios are an important predicator of time pressure, this could lead to higher workloads during specific periods. This finding is illustrated by the following quote:

> In the nursing home [non-normalised large-scale home] it is a rush and your head spins and you get a headache. (Loe and Moore, 2012, p. 758-759)

4.4.2.2 Job control

The job control 'job autonomy' was discussed in the studies reviewed. All studies found that job autonomy is higher in normalised small-scale homes than in non-normalised large-scale homes (Loe and Moore, 2012; Te Boekhorst et al., 2008; Verbeek et al., 2012;). Possible explanations for this are that it is relatively easier to take control and to respond to residents' preferences and to structure the work day (Loe and Moore, 2012; Verbeek et al., 2012). Van Zadelhoff and colleagues (2011) argued however that a lot of autonomy in small-scale settings is given to residents rather than to professional care workers, making the care more resident-oriented. However, this seems to coincide with a higher autonomy experience of care workers in normalised small-scale homes. The following quote reveals higher autonomy experienced by care workers in normalised small-scale settings:

> Because you can plan your own day, (…) you don't have to think about (…) I have to this and now I have to do that. (…) you can sit with residents, chat, go outside. You have that peace, that freedom. (Verbeek et al., 2012, p. 27)

4.4.2.3 Social support

The reviewed studies examined 'peer support', 'social support from supervisors' and 'supply of information' as major components of social support. First, Te Boekhorst et al. (2008) found that peer support is higher in normalised small-scale nursing homes than in non-normalised large-scale nursing homes. Verbeek et al. (2012) found the opposite, social support is lower in nursing homes with normalised small-scale units. The negative outcomes for social support may be due to the isolated workplaces in which the care workers are working (De Rooij et al., 2012; Verbeek et al., 2012). Participants in the normalised small-scale homes in the study of Verbeek et al. (2012) argue that the

problem is that there are no teams to discuss care issues, help each other or divide care tasks, regulatory tasks or house-keeping tasks. This results, as the following quote illustrates, in less social support:

> When something rankles you, you cannot ask someone to take over. (…) At a regular ward you can ask another, [nursing staff] could you assist that resident today. (Verbeek et al., 2012, p. 27)

Second, only one study examined 'support from supervisors' in normalised small-scale settings vs. non-normalised large-scale settings. This study indicated no differences in the social support from supervisors between nursing settings (Te Boekhorst et al., 2008).

Third, one study examined 'supply of information' in normalised small-scale settings and non-normalised large-scale settings. This study showed that care workers exchange more information and communicate more in normalised small-scale homes; this finding was invalidated when adjusted with the response rate (Van Beek et al., 2011). The findings in the study of Van Beek et al. (2011) were thus not very clear on whether the supply of information is higher or lower in normalised small-scale settings in comparison to non-normalised large-scale settings. Loe and Moore (2012) did however argue that there is more supply of information between care workers in different shifts because of teamwork taking place in normalised small-scale settings.

4.4.2.4 Work and health outcomes

The conflicting findings for 'social support' were reflected in the studies' outcomes. First, whereas the comparative study by De Rooij et al. (2012) did not find any differences between the mental strain on health care workers in normalised small-scale and non-normalised large-scale nursing homes, the longitudinal study by Loe and Moore (2012) indicated that moving towards normalised small-scale units decreases mental strain. A possible explanation for a decrease in mental strain, as outlined in the study of Loe and Moore (2012), was that care workers have the opportunity to meet residents' needs (Loe and Moore, 2012).

Second, one study found that work motivation is higher in normalised small-scale nursing homes (Van Zadelhoff et al., 2011). Van Zadelhoff and colleagues (2011) explained the higher score as follows: care workers look after a small group of residents, care workers know residents well because of the homelike environment, and care workers have fewer colleagues and less collegial support which (in turn) leads to building stronger relationships with residents. The intention of normalised small-scale homes to give resident-oriented care seems to be reflected in (overall) higher work motivation. Although in general the study by Verbeek and colleagues (2010) did not find a link between normalised small-scale homes and higher work motivation, the nevertheless stated that care workers in typical normalised small-scale nursing homes are more motivated than care workers in typical non-normalised large-scale homes. It

remained however unclear what was meant by typical. The perceived higher work motivation is supported by the following quote:

> As a staff-member I feel that there is more engagement [motivation] compared with regular care. When something is the matter with a resident, I feel more involved, more close. (Van Zadelhoff et al., 2011, p. 2496)

Third, Kuremyr and colleagues (1994) noticed that care workers in normalised small-scale nursing homes were less at risk of suffering from burnout. The early work of Kuremyr et al. (1994) used one measure of burnout, whilst later studies considered three manifestations of burnout, based on Schaufeli and Van Dierendonck (2001): emotional exhaustion, depersonalisation and reduced personal accomplishment. While one study concluded that depersonalisation and lack of personal accomplishment do not differ between normalised small-scale nursing homes and non-normalised large-scale nursing homes (De Rooij et al., 2012), another study observed that depersonalisation is lower and personal accomplishment is higher in normalised small-scale nursing homes (Te Boekhorst et al., 2012). Regarding emotional exhaustion, there were even more conflicting findings. Whereas two studies examined that care workers in normalised small-scale units have higher emotional exhaustion (De Rooij et al., 2012; Kuremyr et al., 1994), another study showed that care workers in normalised small-scale units have less emotional exhaustion (Te Boekhorst et al., 2008).

Three explanations for differences in levels of burnout levels were present in the studies reviewed. (1) Care workers in the study of Kuremyr et al. (1994) explained that emotional exhaustion in small-scale settings might be due to residents and care workers having difficulties relating to one another. This was mostly because care workers find it difficult to interact and get to know the needs of highly dependent residents. Because of the small group of residents this has a major impact on care workers. In their discussion section, De Rooij and colleagues (2012) also suggested that higher emotional exhaustion may be explained by the fact that (2) care workers have to work alone and therefore social support is lower than in non-normalised large-scale homes, and (3) care workers carry out a more complete job which includes caregiving tasks and additional tasks such as cooking and cleaning. This limits the time for caregiving tasks, especially when no support staff is present to help out with the additional tasks.

4.4.3 Quality of working life issues: links between job demands, job control, social support and health and work outcomes

Figure 11 shows the number of studies that found higher scores '↑', lower scores '↓' or no differences '=' for job demands, job control, social support or work and health outcomes in normalised small-scale homes in comparison to non-normalised large-scale homes. The shape of Figure 11 emphasises by the three arrows in the middle of the figure that the links between job demands, job control and social support impacts on work and health outcomes (see also the first section of this study). Thus, the

collective rather than the independent impact of job demands, job control and social support on work and health outcomes is stressed. The next paragraphs outline two potential quality of working life issues in normalised small-scale homes related to these links.

Studies reviewed revealed similar findings for job demands. Job completeness, job variability and emotional demands were higher (Loe and Moore, 2012; Van Zadelhoff et al., 2011; Verbeek et al., 2012), while time pressure was lower in normalised small-scale homes than in non-normalised large-scale homes (Loe and Moore, 2012; Te Boekhorst et al., 2008; Van Zadelhoff et al., 2011; Verbeek et al., 2012). A first potential quality of working life issue for care workers in normalised small-scale homes concerns the higher job demands (i.e. job completeness, job variability and emotional demands) compared to those in non-normalised large-scale homes.

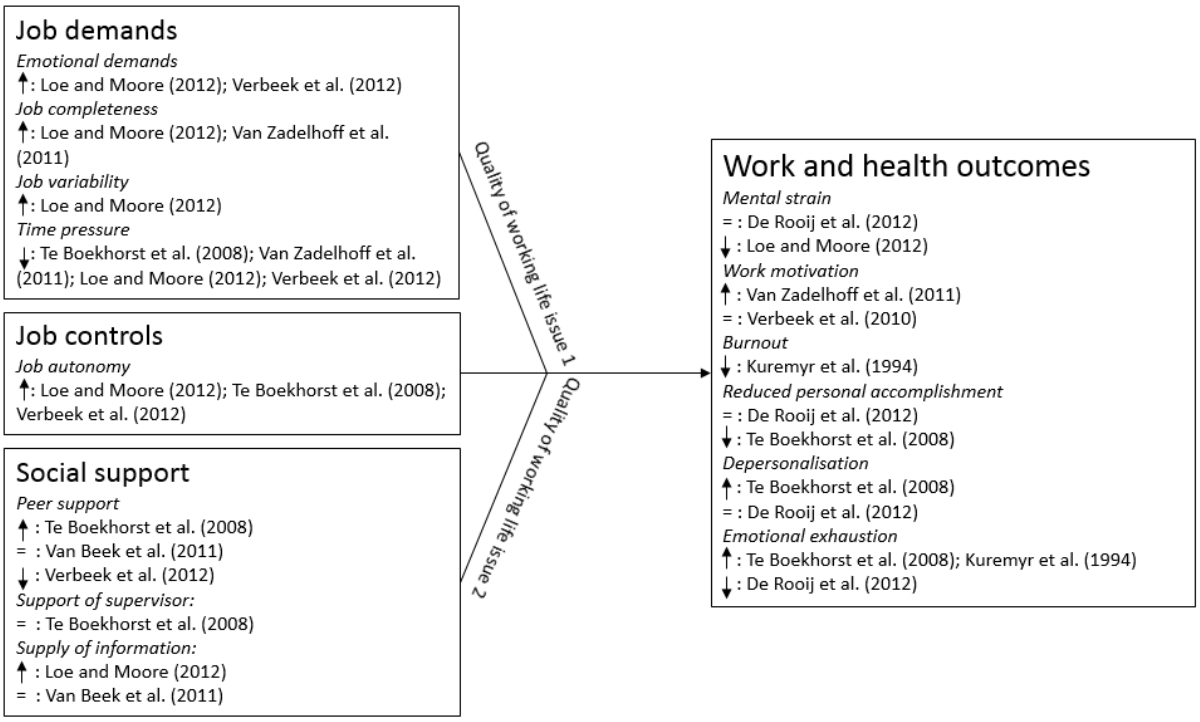
The studies of Loe and Moore (2012), Te Boekhorst et al. (2008) and Verbeek et al. (2012) indicated that care workers experience higher job control in normalised small-scale homes than in non-normalised large-scale homes. Higher job control gives care workers the possibility to compensate for higher job demands (Verbeek et al., 2012) and therefore, reduces the quality of working life issue of higher job demands in normalised small-scale living homes. Looking only at job control and job demands, it could be claimed that this would lead to lower risk of stress and burnout, and encourage a higher level of work engagement. The studies we reviewed, however, did not support this latter claim.

The reason for this may be that these studies reported conflicting findings for social support (Loe and Moore, 2012; Te Boekhorst et al., 2008; Van Beek et al., 2011; Verbeek et al., 2012). Care workers do not always experience higher social support to compensate for higher job demands in normalised small-scale homes. Social support was, therefore, a second potential quality issue for working life. Support from peers and supervisors as well as information supply are all problematic in normalised small-scale homes. Peer support is a major concern because some studies suggested this was lower in normalised small-scale homes than in non-normalised large-scale homes (De Rooij et al., 2012; Verbeek et al., 2012). If a job is more demanding, a proportionally higher level of support from supervisors and a better supply of information would be expected. This was not always observed in the studies reviewed (Te Boekhorst et al., 2008; Van Beek et al., 2011).

The studies reviewed produced conflicting findings for work and health outcomes: mental strain, work motivation and burnout (De Rooij et al., 2012; Kuremyr et al., 1994; Loe and Moore, 2012; Te Boekhorst et al., 2008; Van Zadelhoff et al., 2011; Verbeek et al., 2010). Some studies found that work motivation was higher, while burnout and mental strain risks were lower in normalised small-scale nursing homes. Other studies did not show any differences or even reported opposing findings. Data from Kuremyr et al. (1994) and Te Boekhorst et al. (2008) were particularly relevant to the quality of working life of care workers, given that they found that emotional exhaustion and depersonalisation were higher in normalised small-scale homes than in non-normalised large-scale homes.

The poorer work and health outcomes in normalised small-scale settings, and the fact that some studies observed no differences between care settings, can be explained by the two quality of working life issues. In the first place, job demands differ and seem to be higher in normalised small-scale homes, leading to poorer work and health outcomes. De Rooij et al. (2012) indicate, for instance, a higher risk of emotional exhaustion, as the introduction of housekeeping tasks could be at the expense of time for nursing tasks. In the second place, high job demands and low social support were found in some normalised small-scale homes. Because job demands, job control and social support need to be in balance to reduce both job-related stress risks and the concurrent worsening of work and health outcomes (Johnson and Hall, 1988; Karasek, 1979; Landsbergis, 1988), the conflicting findings for social support probably reflected conflicting findings for mental strain, work motivation and burnout. In other words, care workers in some normalised small-scale homes had not enough social support to compensate for higher job demands (De Rooij et al., 2012). This may have led to worsening work and health outcomes. We therefore argue that the first and second potential quality of working life issue are of utmost importance to improve the work and health outcomes of care workers in normalised small-scale settings, as is graphically shown in Figure 11, whilst they also explain conflicting findings in studies reviewed.

Figure 12: Visual representation of the review findings



Legend: (1) a '↑' : signifies higher scores in normalised small-scale homes when compared to non-normalised large-scale homes; a '=' signifies that the studies found no differences between care settings; a '↓' signifies lower scores in normalised small-scale homes when compared to non-normalised large-scale homes. (2) Reduced personal accomplishment, depersonalisation and emotional exhaustion are examined as manifestations of burnout. Because the studies of De Rooij et al. (2012) and Te Boekhorst et al. (2008) did not calculate one variable for burnout, we show the findings for each manifestation of burnout.

4.5 Discussion

This study presents the first overview of studies that compare the quality of working life of care workers in normalised small-scale and non-normalised large-scale nursing homes. So far, this study focused on the findings of the studies reviewed, care workers experience higher job control to deal with higher job demands in comparison to non-normalised large-scale homes. Therefore, we think it is fair to claim that normalised small-scale homes are a good starting point for creating a higher quality of working life in the nursing home sector. However, the high job demands as well as the balance between job demands and social support seem in need of improvement in normalised small-scale homes as care workers in some studies experience low support and too high job demands. We suggest in this section future research directions on the quality of working life in normalised small-scale homes, give methodological recommendations for future studies and show the implications of the review's findings for care for the elderly.

4.5.1 Strategies for enhancing the quality of working life in normalised small-scale homes

The review findings show that too high job demands and the balance between high job demands and low social support are the quality of working life issue in normalised small-scale homes. De Rooij et al. (2012) and Te Boekhorst et al. (2008), as well as care workers interviewed in the studies by Loe and Moore (2012) and Verbeek et al. (2012) suggest two strategies to increase quality of working life: to increase the staff/resident ratio in order to decrease individual job demands, and to implement teams to enhance social support. These strategies could also explain the conflicting findings between different studies. Some studies may have been carried out in homes with high levels of teamwork or with a large staff to resident ratio, while other studies may have examined homes that were understaffed or with low levels of teamwork. The next sections explore both strategies in greater detail.

4.5.1.1 Strategy one: decreasing job demands in normalised small-scale homes

A first suggested strategy is to decrease individual job demands by increasing staff number (Verbeek et al., 2012). This may seem a straightforward solution: just employ more care workers in each small living unit. In particular, more support staff to help with care and housekeeping tasks was requested. This strategy, however, can be difficult to implement in some countries, due to cost cutting pressures in the nursing home sector (Burns et al., 2016; De Rooij et al., 2012). One solution would be to make more use of informal care workers such as volunteers in normalised small-scale settings. Another solution could be to increase the person-job fit in normalised small-scale homes: i.e. to hire care workers with the ability to work in high demanding jobs (e.g. care workers able to deal with highly emotional situations) or to provide care workers who are not yet competent in certain areas with training in coping strategies. Future studies could look into whether specific human resource practices would be able to decrease high job demands and therefore create a better balance between job demands and social support in normalised small-scale homes.

4.5.1.2 Strategy two: increasing social support in normalised small-scale homes

The question is, however, whether lower job demands are desirable, as they may lead to routine and boring jobs (Oeij et al., 2006). Therefore, we find the second possible stategy a more viable option: increasing social support through a greater implementation of teamwork. Benders and Van Hootegem (1999) and West and Markiewicz (2008) have examined which aspects of teamwork are most likely to make an impact, since not every team formation has a positive effect on social support (Bambra et al., 2007). Several studies pointed out that teams could be viable in the small-scale setting, but remained vague on what they meant by teamwork. (De Rooij et al., 2012; Loe and Moore, 2012; Te Boekhorst, 2008; Verbeek et al., 2012). Based on these shortcomings, we suggest three directions for future research

on whether the way in which work is divided between care workers in and between teams influences social support in normalised small-scale homes. A first research direction is to investigate whether creating links between units fosters mutual (social) support. Care workers would be able to ask for support from colleagues in connected teams when nobody on their own team is able to help. A second direction is to look whether self-managed teams increase social support. In such teams, care workers would have the opportunity to contact other workers and ask them for support without the need of first contacting supervisors or management units. A third direction is to look whether cross-functional teams of care workers and support staff (e.g. cleaning staff or kitchen staff) increase social support. In this setting, care workers would be working within an interdisciplinary team taking care of the same residents. This may make it easier for workers to support each other and ask for help from support staff when needed.

4.5.2 Organisational design and architecture

Remarkably, two factors were hardly discussed in the studies reviewed: organisational design and architecture. Two exceptions to this are the studies by Loe and Moore (2012) and Verbeek et al. (2012) whose empirical results point to the importance of teams. The almost complete empirical neglect of organisational design is remarkable giving the long-standing research traditions pointing to the importance of organisational design for jobs and even the embeddedness of job design in organisational design (f.i. De Sitter et al., 1997). As early as 2001, Baeckeland et al. (2001) argued that normalised small-scale living requires a modified organisational design, which enhances care workers' quality of working life by shaping jobs with high job demands, social support and job control. Although there is certainly an awareness that changing the form of living impacts the way tasks are divided over individuals, designing these new jobs does not seem to follow explicit job design principles. This then holds in extenso for the organisation as a whole, which may be seen as the compilation of jobs. Research is, therefore, needed to translate job and organisational design principles to small-scale normalised housing (Declercq, 2009).

Furthermore, introducing normalised small-scale living is often combined with living in new purpose-built small buildings (Van Steenwinkel et al., 2012). Their construction critically effects the 'organisational task pool': the kind of tasks that need to be performed and the amount of time to be spent on those tasks (Benders, 1995). For instance, walking distances may vary considerably between different forms of housing, and if food is prepared within a kitchen in the living unit the requisite skills and resources need to be present. The construction does not, however, influence how the tasks are combined into functions, i.e. who does what. That is a matter of job and/or organisational design. The relative importance of both factors, and how they inter-relate in praxis, and what constellations of architectural

and organisational forms occur, has to our knowledge not been investigated, let alone how they impact the quality of working life.

4.5.3 Methodological recommendations for future studies on quality of working life in normalised small-scale and non-normalised large-scale homes

We recommend three methodological adjustments to the literature on quality of working life in normalised small-scale vs. non-normalised large-scale homes. First of all, the studies reviewed concentrated on a limited number of subdimensions of the quality of working life. For example, Te Boekhorst et al. (2008) narrowed job demands down to time pressure. But as we examined in this study, a decrease in time pressure does not necessarily result in a similar decrease in other subdimensions of job demands (i.e. emotional demands, job completeness and job variability). The same can be argued for job control and social support. Therefore we suggest that future research puts greater emphasis on the different subdimensions of quality of working life.

Secondly, the studies reviewed were post-test studies with two types of research designs. The studies compared normalised small-scale homes with non-normalised large-scale homes or they asked care workers after the move from non-normalised large-scale homes to normalised small-scale homes whether their work experience had changed. The first design has as major problem in that different care workers were examined in both settings, while quality of working life was measured with individual experiences. Therefore, the inconsistencies observed in these studies may have been due to individual differences and preferences. A major problem in the second design is that researchers asked care workers to compare their experiences in present and past care settings. It is difficult, however, for respondents to answer questions about past experiences (Groves et al., 2011), possibly making their answers unreliable when comparing both care settings. We do not necessarily suggest random control trial designs because such designs are not always practical in an organisational context (see: Alexander and Hearld, 2009). Rather, we suggest that future research uses a pre- and post-test research design where experiences of the same care workers are studied twice: before and after the move towards normalised small-scale homes.

Thirdly, most studies reviewed compared the quality of working life in Dutch normalised small-scale and non-normalised large-scale homes. This may make the corresponding findings specific to the Dutch institutional context. Countries may, for instance, have different funding systems or a different number of staff per residents, which may impact on time pressure experiences. However, two elements suggest that this is not the case. (1) Although De Rooij et al. (2012) found quality of working life differences in the Netherlands and Flanders (Belgium), the quality of working life differences between both care settings were still similar. This seems to imply that the findings are not institutionally specific, at least in the case of these two countries. (2) There are no differences between the reviewed Dutch and other

studies regarding the findings for job demands and job control. This seems to imply that the same findings apply across institutional contexts. We suggest that future research compares the quality of working life of both care settings in more countries than just the Netherlands.

4.5.4 Implications for nursing

The findings of this review favour the normalised small-scale setting. Care workers had higher job control and higher job demands (except for time pressure) in small-scale settings than in normalised large-scale settings. Therefore, we encourage practitioners to implement normalised small-scale homes. Too high job demands as well as the balance between job demands and social support do, however, remain open for improvement. Care workers in some studies had very high job demands and had to work alone frequently, which was reflected in higher stress-risks, higher risk of burnout and lower work motivation. We suggest that practitioners in normalised small-scale homes further investigate possibilities to lower job demands and to balance social support and job demands. Although care workers in the studies proposed the implementation of teams and the increase of the staff/resident ratios in normalised small-scale homes, we would first encourage more research on whether specific (1) team types enhance social support and (2) human resource practices decrease job demands, before recommending this to practitioners.

Finally, the question arises whether a good quality of working life is also beneficial for residents. The few studies on this topic indicate that poor quality of working life for care workers results in poor care quality for residents in nursing homes (Bishop et al., 2008; Burns et al., 2016). Bishop et al. (2008) found that residents with committed care workers are more satisfied and Burns et al. (2016) gave the example that high time pressure leads to poor personal care for residents. We therefore encourage nursing homes to implement normalised small-scale homes, not only to increase quality of working life for care workers, but also for the spill-over effect of an increased quality of working life onto quality of care. However, due to the paucity of studies on this topic, more research is needed to confirm this link.

4.6 Limitations

Even though we designed our review so that few research limitations occurred, one limitation may be important to highlight. It is possible that not all relevant studies on quality of working life and the setting of nursing homes were included in the review, because quality of working life and normalised small-scale homes have neither a standardised definition nor a standardised operationalisation. This made it particularly difficult to identify key terms for the search engines. We tackled this limitation by using theoretical frameworks, which provided common synonyms of working life quality (Hackman and Oldman, 1975; Johnson and Hall, 1988; Karasek, 1979; Karasek and Theorell, 1990; Morgeson and

Humphrey, 2006; Van Hootegem et al., 2014) and normalised small-scale homes (Verbeek et al., 2009). The list of search terms in Appendix 1 is therefore self-generated, but based on established theoretical frameworks.

4.7 Conclusion

Ageing populations will cause an increased demand for care workers in nursing homes. Therefore, excessive levels of stress need to be prevented to help decrease burnout and to increase work motivation. This can be achieved by giving care workers demanding jobs with high job control and high social support (Mauno et al., 2007; Willemse et al., 2012; Xie et al., 2011). This review examined whether normalised small-scale nursing homes are able to give formal health care workers a higher quality of working life than non-normalised large-scale nursing homes. We found that higher job control makes it possible for care workers to deal with higher job demands in normalised small-scale homes. However, higher job demands are not balanced in all normalised small-scale homes with higher social support. This was due to workers' job isolation. These experiences result in conflicting findings among studies reviewed for work and health outcomes. Therefore, we consider that the move towards normalised small-scale living enhances the quality of working life in the nursing homes sector, but experiences of low social support and too high job demands still require improvement. Future research should urgently examine which strategies enhance the provision of social support, decrease too high job demands, and stop care workers' perceptions of isolation.

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CHAPTER 5. QUALITY OF WORKING LIFE IN NORMALISED AND SMALL-SCALE NURSING HOMES

This chapter is a translation from the Dutch paper published as: Vermeerbergen, L., Van Hootegem, G., & Benders, J. (2016). Kwaliteit van arbeid in kleinschalige genormaliseerde woonzorgcentra. *Tijdschrift voor Arbeidsvraagstukken*, *32*(4), 377-391.

The original full paper in Dutch is attached in appendix 5 of this dissertation.

Abstract

In recent years several Flemish nursing homes switched to a small-scale and normalised organisation of care. Has this switch also resulted in an improved quality of working life? This review article describes the results of four empirical studies on the quality of working life in normalised small-scale nursing homes. The findings of the empirical studies show that normalised small-scale care is a step in the right direction concerning the quality of working life of care workers in nursing homes. However, it offers no guarantee of an overall improvement in the quality of working life, as shortcomings were found in the empirical studies as well.

5.1 Introduction

> Nursing homes are becoming care factories wherein the elderly (...) are being 'processed' and the staff is at wits' end. (D'Hoore & Renson, 2015)

For one week the Flemish newspaper *De Tijd* issued a daily thematic article on the future of nursing homes in Flanders. The thematic article on the organisation of healthcare, wherefrom the above quotation is taken, depicts a bleak picture. An ageing population, dejuvenation and budget cuts in the care sector make that nursing homes are increasingly becoming organisations where passionate employees have to work in debilitating circumstances.

The above citation is based, in part, on research done by The Social and Economic Council of Flanders (SERV). Care workers in nursing homes have to deal with a low quality of working life. The problem seems to be that care workers have too little job control in order to meet high job demands (Bourdeaud'hui & Vanderhaeghe, 2012). Job control is the degree of discretion employees possess over their tasks or their behavior while performing their job tasks, as well as peer support and social support from supervisors (De Sitter, 1998; Karasek & Theorell, 1990). A high risk of stress, and therefore low work motivation, and a significant risk of burnout are some concrete consequences of this imbalance between job demands and job control (Clegg, 2001; Kirkcaldy & Martin, 2000). In context of both the growing ageing population, and a related increase in the number of elderly, as well as the already existing labour shortages in the care sector, it is desirable to commit to improving the quality of working life of care workers.

It was in the 1980s that, in response to the impersonal care, taking place in nursing homes, the first normalised small-scale nursing homes in Flanders were built (Declercq, 2009; Declercq et al., 2007). The 'conventional' nursing homes, upon which normalised small-scale housing is a reaction to, are, according to De Rooij et al. (2012), characterized by a medical orientated focus on care and living groups with more than 20 residents. Normalised small-scale nursing homes seek to provide residents a life that resembles that of people outside of nursing homes ('normalised'). Living groups of limited size are therefore a necessary condition ('small-scale').

In recent years various nursing homes have switched to this form of small-scale and normalised living. Government support for both new nursing homes and the renovation of existing ones, in combination with altered fire regulations regarding the maximum allowed number of residents per living unit, have fostered the transition to small-scale, normalised living in Flanders. It has been claimed (Charlot et al, 2009, p 60; Expertisecentrum Dementie Vlaanderen, 2012) that this form of housing is better for the quality of working life of care workers. The question arises as to what extent these claims can be empirically substantiated.

The quality of care work in Flanders is placed high on the policy agenda. The figures on the low quality of working life for care workers in nursing homes (Bourdeaud'hui & Vanderhaeghe, 2012) have, in fact,

not eluded the Flemish government. The Flemish Minister of Welfare, Public Health and Family, Jo Vandeurzen, and Flemish Care Ambassador Lon Holtzer argue that Flanders has to apply itself to establishing innovative work organisations within nursing homes, with the aim to increase the quality of working life of care workers (Vandeurzen & Holzer, 2015). The same question arises in accordance with policy: Does normalised small-scale living, as an innovative way of living, increase the quality of care jobs? This literature review aims to give an overview of the results of empirical studies on the quality of working life in Flemish normalised small-scale nursing homes.

First, this study will provide a brief overview of the importance of the nursing home sector in Flanders. Next the quality of working life of care workers in Flemish nursing homes will be discussed. Thereafter the definition of normalised small-scale living will be outlined. The methodology section will show how the empirical studies, used in this review article, were selected. Subsequently, the relationship between the quality of working life and normalised small-scale living will be described in the results section. Lastly, the discussion section will take a closer look at possible future research and policy agendas.

5.2 Employment in the Flemish nursing home sector: a clarification of the importance of quality of working wife

Approximately 69.000, or one percent of the Flemish population, lived in a nursing home between 2009 and 2013 (Agentschap Zorg & Gezondheid, 2015a). In 2012, 42.358 employees were employed on a permanent contract in the Flemish nursing home sector (Agentschap Zorg & Gezondheid, 2015b). Due to the aging Flemish population, it is expected to see a rise in the number of residents and, accordingly, an increased demand for care workers in nursing homes (Van den Bosch et al., 2011). Between 2009 and 2014 the number of beds in nursing homes in Flanders grew with 6.472; this boils down to a percentage increase of about 10 per cent (Agentschap Zorg & Gezondheid, 2015c). In addition, the Flemish Government decided that, by 2018, 8.413 new places will be created in nursing homes (Vandeurzen, 2015). A problem to meet this rising demand is that the filling of vacancies for various health care professions is difficult. These ‘bottleneck vacancies’ include those for nurses, logistics managers, care workers and physical therapists (physiotherapists) (Vlaamse Dienst voor Arbeidsbemiddeling en Beroepsopleiding, 2015). For nurses, there exist even long-term labour shortages. The rising demand for care workers could increase the already existing labour shortages.

The above should, however, be nuanced, in that it seems that hitherto the absolute number of elderly people is growing in nursing homes, but that the demand for housing does not increase proportionally with the number of elderly people within the entire Flemish population (Agentschap Zorg & Gezondheid, 2015a). A lot of people, who’re not in need of intensive care, are in fact cared for outside nursing homes, mostly at home by informal caregivers and/or through home care.

The growing demand for care workers in nursing homes appears thusly to be in part cushioned by alternative forms of housing. However, this nuance can actually be even further nuanced. Namely, nursing homes are faced with an increasing number of people in need of intensive care, because the people needing less intensive care are being replaced with the ones needing more intensive care. This means it is likely that the demand for care workers in the Flemish nursing homes will increase anyway.

Incidentally, this situation is remarkably different from the one in the Netherlands. While, in recent years, Flanders has seen a considerable effort towards expanding existing nursing homes and the building of new ones (Vandeurzen, 2015; Vlaams Infrastructuurfonds voor Persoonsgebonden Aangelegenheden, 2013), The Netherlands is going in a different direction. In the Netherlands, the capacity of nursing homes has actually been reduced substantially, altogether with a significant commitment to home care and informal care (Van Rijn, 2014; 2015). Flanders is slowly following the Netherlands' lead. For example, in 2015 subsidies to facilitate new construction were scaled back, and Minister Vandeurzen (2015) has, among others, made informal care a priority in his administration.

In addition to reducing the relative number of residents by utilizing alternative forms of housing, can improving the quality of working life in nursing homes also be a solution for (future) labour shortages. To be specific, this could lead to an improved quantitative staffing in which the outflow of personnel is reduced, and the inflow and retention of personnel is increased. In 2012, for example, 7.5% of Flemish employees with a permanent contract volunteered to leave the nursing home where they worked (Agentschap Zorg & Gezondheid, 2015b). Moreover, seen that only 30% of those job leavers move onto working anew in a nursing home (Albertijn & Devrieze, 2009), one can quickly detect a large labour potential that could accommodate to existing and future labour shortages.

5.3 Quality of working life: focus on job content of care jobs

De Sitter et al. (1997), Karasek (1979), and Van Hootegem et al. (2014) argue that job content is crucial to the mental and physical health of employees: Employees have need of sufficient job control in order to meet their job demands. Job demands are, according to Karasek (1979), the psychological requirements inherent to performing a particular job. Job control is twofold. One, there is the employees' job control regarding their duties or their behavior while performing their job (Karasek, 1979). And two, there are opportunities for peer support and social support from supervisors (Karasek & Theorell, 1990). If employees possess insufficient job control in relation to their job demands, the risk of stress increases with potential negative consequences for the mental and physical health of said employees. Low work motivation (Mauno et al., 2007) and high turnover rates (Chiu et al., 2009) are some concrete consequences of such imbalances between job demands and job control. In short, this study's focus on job content of care workers as an indicator of quality of working life is theoretically inspired, seen as

the literature shows that job content is strongly linked to the psychological and physical health of care workers.

Every three years The Social and Economic Council of Flanders (SERV) carries out a survey on employees' quality of working life. The above model of job demands and job control is explicitly included in this query as a theoretical framework. The 2013 SERV data allow for a breakdown by economic activity. Based on these data, tables 6 and 7 show the percentage of jobs with a 'problematic' working life quality. For a methodological exposition on how 'problematic' is calculated, we refer to the Methodological Note of the Flemish Workability Monitor (Bourdeaud'hui & Vanderhaeghe, 2013a). In four of the five conditions, employees in nursing homes score more problematic than employees in the overall health and welfare sector. This therefore also shows the social relevance of research on job content in this sector. The results are further shown per table.

Table 6 indicates that for 35 to 40% of employees, the job demands are problematic with regards to workload, emotional stress and task variation. The results for job control are somewhat more positive, but are still problematic. Autonomy is for 32% of employees problematically low, and social support from supervisors is for 16% of employees too low as well. In addition, it can be seen from Table 4 that in nursing homes approximately 10% more employees experience a problematic score for workload, task variation and autonomy, compared to employees in the overall health and welfare sector. The biggest difference lies in task variation.

We should note that the scores are calculated per dimension and that they are absolute, i.e. the relation between job control and job demands is not investigated. Although the balance between job demands and job control can therefore not be directly deduced from Table 6, it can be noted that many care workers in nursing homes experience job content as problematic because of high job demands or relatively little job control (compared to other care sectors). These problems, for that matter, also occur in the rest of the Flemish workers population (Bourdeaud'hui & Vanderhaeghe, 2013b).

Table 6: Care workers with a problematic quality of working life in Flemish nursing homes and in the total healthcare sector in 2013 (%)

Sub dimensions of quality of working life	**Nursing home sector (n= 473)**	**Total care sector (n= 2.646)**
Time pressure	40	30
Emotional demands	35	35
Task variation	35	23
Autonomy	32	24
Support from suppervisors	16	13

Source: own illustration based on Bourdeaud'hui & Vanderhaeghe (2013b; 2014).

Legend: percentages are calculated separately for the nursing home sector and the total care sector .

Table 7 shows that employees in nursing homes experience more work stress than in other health and welfare sectors (35.3% compared to 29.7% in the total sector). If we follow the job demands-control(-support) model, this problematic score for stress can be explained using the abovementioned problematic scores for job control and job demands (Karasek, 1979). This higher score for stress can also explain the differences in motivation problems, learning opportunities and problems within the work-private balance.

We should mention that these outlined relationships should be interpreted with some reservations, because job control cannot be relatively compared to job demands. Despite these problems, we still see that many care workers in nursing homes have an inherent concern for care: despite existing job content risks, care workers want to continue offering high quality care. However, they often collide with the boundaries of their task package, they do not have the responsibility or their job does not include all of the necessary tasks to fulfill their care (The, 2005). This is in line with Bourdeaud'hui and Vanderhaeghe's (2014) findings, which examine that a high number of employees (40%) argue that they can only work until they are 65 if their work is adjusted.

Table 7: Care workers with stress, motivation problems, insufficient learning opportunities, and a work-life inbalance in the Flemish healthcare sector in 2013 (%)

Sector	Stress	Motivation problems	Insufficient learning opportunities	Problematic work-life balance
Hospitals (n= 1.029)	33	11	13	9
Nursing homes (n= 473)	35	14	21	10
Family and elderly care (n= 310)	24	13	19	6
Total healthcare sector (n= 2.646)	30	12	15	9
Total Flemisch labour market (n= 17.214)	29	18	18	11

Source: own illustration based on Bourdeaud'hui & Vanderhaeghe (2014).

Legend: percentages are calculated per sector.

5.4 Normalised small-scale living: definition

Earlier research shows that normalised small-scale living affects the quality of working life of care workers in a positive way (Charlot et al., 2009; Expertisecentrum Dementie Vlaanderen, 2012;). Normalised small-scale living could thus be seen as a strategy for increasing the quality of working life of care workers. Normalised small-scale living, however, did not arise from the idea of organising a higher quality of working life, but rather as a reaction to the impersonal care for residents by the end of the 1990s (Declercq et al., 2007). This form of caregiving differs from other nursing homes due to the

organisation of care and household (Te Boekhorst et al., 2007). Residents should lead life's as close to the way they would lead life's outside the nursing home.

Van Audenhove et al. (2003) sketch five directives for normalised small-scale living in nursing homes (see also Table 8). First, there must be a common and recognisable living environment that supports the connection with the societal, social and familial context. The resident is then, within his possibilities and limitations, encouraged to participate as much as possible in this living environment. Second, personal care must be offered in a tailor-made fashion and to the needs of the resident. Third, in addition to medical care, attention must also be paid to the quality of life of the resident. This implies, amongst others, that both the social and psychological health of residents is stimulated. Fourth, the care and offered services are based on the daily activities and interaction both amongst residents themselves and between residents and care workers. Care workers and residents will perform domestic duties. Fifth, residents are given as much support as possible to enable them to take control over their own lives. This is done so that their quality of life can increase. According to Van Audenhove et al. (2003), the organisation of these five directives can best be achieved in small living units. Small-scale is determined by the limited number of residents grouped in living units (Van Audenhove et al., 2003) or the limited number of employees per living unit (Te Boekhorst et al., 2007). In short, high quality of life is the goal, while small-scale is seen as a practical condition for achieving a higher quality of life.

Table 8: Characteristics of normalised small-scale living in nursing homes

1	Homelike atmosphere
2	Individualised care
3	Medical and social model of caregiving
4	Caregiving is based on the daily contacts with residents, care workers, and relatives
5	Resident autonomy
6[a]	Small living units

[a] Van Audenhove et al. (2003) argue that for a practical elabouration of these five characteristics, nursing homes need to have small living units.

Source: own illustration based on Van Audenhove et al. (2003)

Because of financial and legislative problems, normalised small-scale living in Flanders did not become as great a success as in the Netherlands (Declercq et al., 2009). Internationally, we see that this care concept has been introduced in different countries. We could, for instance, refer to 'Wohngruppen' in Germany (Dettbarn-Reggentin, 2005) and to 'Green Houses' or 'Eden Houses' in the United States (Rabig et al., 2006). The number of nursing homes that operate in a small-scale and normalised way, however, seems to be relatively small in Flanders. Despite that, there are not concrete data available. For example, the network of normalised small-scale living includes 15 nursing homes as active members, while as per 1 September 2016 there were 791 recognized nursing homes in Flanders and the Capital Region of Brussels. It seems that since 2009, more and more nursing homes have become small and normalised.

Two reasons can be found for this phenomenon. On the one hand, 23 new nursing homes and 6,429 new residential units have been created since 2009 (Agentschap Zorg & Gezondheid, 2015d). This was possible, amongst others, thanks to financial support from the Flemish Infrastructure Fund for Personal Affairs (VIPA). We must acknowledge, though, that this support has been withdrawn since January 2014 (Vlaams Infrastructuurfonds voor Persoonsgebonden Aangelegenheden, 2013). Table 9 shows the total number of recognized nursing homes in Flanders, organised by province, for 2013. Likewise, the number of nursing homes being researched and the number of nursing homes being planned are shown. We note that many nursing homes are in the planning stages. This government support for installing a new architecture is important, as it becomes possible for nursing homes to apply a new residential concept, such as normalised small-scale living. On the other hand, the Flemish Government issued a fire safety decree in 2011, which states that nursing homes should consist of sub-compartments with no more than 20 residents present at night (Vlaamse Regering, 2011). This number of residents, as seen in the concept of normalised small-scale living, limits the maximum number of inhabitants per living unit.

Table 9: The total number of nursing homes per province in Flanders in 2013

Province	**Number of accredited nursing homes**	**Number of nursing homes under investigation**	**Number of planned nursing homesn**	**Total**
Antwerpen	199	3	45	247
Limburg	82	3	35	120
Oost-Vlaanderen	190	1	34	225
Vlaams-Brabant	124	0	34	158
West-Vlaanderen	160	1	33	194
Vlaanderen	755	8	181	944

Source: own illustration based on Agentschap Zorg & Gezondheid (2013)

The five directives for normalised living, as depicted by Van Audenhove et al. (2003), are all formulated from the perspective of residents. However, these directives do not directly include the position of care workers themselves. Nevertheless, the relationship between normalised small-scale living and jobs demands seems obvious at first sight. Because individual care workers themselves provide care (i.e. medical and domestic care) for residents in small age groups, they get to perform more complete, varied, unpredictable, emotionally difficult and complex tasks. After all, they get a more complete task package: the resident in its totality.

The relationship between normalised living and job control is more difficult. Indeed, it is not because employees, for example, perform more complete tasks that they also have more autonomy or social support. These expectations concerning shifting job demands and the ignorance regarding potentially shifting job control led to this article. It asks whether implementation of small-scale and normalised

living in Flemish nursing homes is in fact a feasible strategy to increase the quality of working life within the nursing home sector.

5.5 Approach for literature search

In the previous sections we showed that, in Flanders, there are problems with regard to the quality of working life of care workers in nursing homes. In this study we ask ourselves, by means of a literature research, whether normalised small-scale nursing homes are part of the solution to reduce quality of working life problems for care workers. We opted for literature research because as a result, the findings of various empirical studies on the quality of working life in normalised small-scale nursing homes are compiled within a single overview. This literature research was conducted by systematically searching through LIMO, the search platform for LIBISnet libraries. We used this search platform because several Flemish research centers have linked their library to this platform, ensuring an optimal inclusion of studies on care workers in Flanders. Two additional search strategies were applied to obtain all possible studies done on the quality of working life in small-scale, normalised nursing homes. On the one hand, the reference lists of selected studies were examined. On the other hand, two academic experts in Flanders were asked if they had any further studies in mind that had to be included. These experts did not come up with any additional studies. This seems to indicate that this literature study includes all studies done on the quality of working life in normalised small-scale nursing homes in Flanders. We also want to point out that the authors of this literature study are not linked to the selected studies as authors.

Studies, found using the above search strategies, had to meet three selection criteria to be included in this literature study:

1. Studies must cover job content of professional care workers in Flemish nursing homes.
2. Studies must make use of empirical data on job content by means of qualitative, quantitative or mixed-method research methodology.
3. Studies must cover job content in nursing homes with less than 16 residents per living unit.

5.6 Findings

Four studies were found on the quality of working life in Flemish normalised small-scale nursing homes. Of the four studies, two compare the job content of care workers in normalised small-scale nursing homes and of those in other nursing homes. The other two studies only look at job content in normalised small-scale nursing homes. Each of the above studies only carry out research in certain nursing homes. There is no study that attempts to make a representative comparison of normalised small-scale and "conventional" nursing homes in Flanders. Table 10 concisely summarises the four studies' main

characteristics. An overview of the studies' findings is shown in Table 11. The psychometric quality of the studies was tested using the Qualitative Assessment and Review Instrument (Hannes et al., 2010) and the Quality Assessment Tool for Quantitative Studies' (Thomas et al., 2004). Only the study of De Rooij et al. (2012) has a high psychometric quality. This is explained by the policy approach used by the three other studies.

Table 10: Overview of studies reviewed on care workers' quality of working life in normalised small-scale nursing homes in Flanders

Authors	**Year of publication**	**Total number of sampled care workers**	**Methods**		**Comparing conventional nursing homes with normalised small-scale nursing homes**
			Qualitative	**Quantitative**	
Van Audenhove et al.	2003	39	X	X	
Declercq et al. [a]	2007; 2009b	89		X	X
Spruytte et al.	2010	6	X		
de Rooij et al.	2012	48		X	X

[a] We refer to the report van Declerq et al. (2007) and to the article of Declercq et al. (2009) in the journal 'Tijdschrift "Denkbeeld: Tijdschrift voor Psychogeriatrie', because both use the same data.

Van Audenhove et al. (2003) and Spruytte et al. (2010) show that care workers in normalised small-scale nursing homes experience high job demands, but that they also have a high level of job control in order to meet those job demands. Employees have a diverse and complex task package, consisting of caring, domestic and administrative tasks. In addition, the emotional burden, which arises from tight bonds found between residents and staff in small-scale housing, becomes very heavy when a resident becomes ill, dies or has to move to another living unit or organisation. Furthermore, employees need to work hard and experience high work pressure, especially during shift changes. On the one hand, these high job demands are offset by a lot of autonomy and responsibilities. On the other hand, the small-scale nature of the living units ensures that employees know each other well, causing high levels of peer support. The studies nuance these findings with two critical points. First, because of the small-scale nature, employees often work alone, which makes peer support challenging. Care workers often have to make decisions alone, without receiving feedback from colleagues. This makes calling in temporary support often difficult as well. Secondly, the balance between job control and job demands could quickly tilt in favor of job demands. For example, the workload could become very high at times or employees could become "too involved" in their work in case a resident passes away.

The two above-mentioned studies, with some nuance, mention a balance between job demands and job control in normalised small-scale nursing homes. The studies of Declercq et al. (2007; 2009) investigate whether there actually is a better balance between job demands and job control compared to conventional forms of living. We should note that more job demands are not necessarily bad, provided they come with more job control (Karasek, 1979).

Declercq et al. (2007; 2009) find mixed results for the differences in job demands between normalised small-scale nursing homes and other nursing homes. Some job demands' dimensions appear to be lower while other dimensions appear to be higher in normalised small-scale nursing homes. On the one hand, the quantitative workload (cf. less work in the same time period) in normalised small-scale nursing homes is lower, while the qualitative workload (cf. higher level of job difficulty) is higher and employees have to wait less for other care workers or solve problems caused by their colleagues. In addition, the used healthcare material is of a higher quality and they have to deal less with demanding residents, and residents with misunderstood behavior. On the other hand, the independence of colleagues lead to higher job demands. Employees have received a more varied, more unpredictable and broader task package.

Declercq et al. (2007; 2009) find that, in normalised small-scale living, job control is higher. Both peer support, social support from supervisors, information supply and employee autonomy are higher in normalised small-scale living. Despite the social support problems, as outlined in studies done by Van Audenhove et al. (2003) and Spruytte et al. (2010), it appears that social support is greater in normalised small-scale nursing homes than in other nursing homes. Care workers in normalised small-scale nursing homes thus have more job control in order to deal with other, and for some dimensions even higher, job demands.

In accordance with the above results, Declercq et al. (2007; 2009) find that employees in normalised small-scale nursing homes have more opportunities to develop their passion for healthcare. They can offer more tailored care to residents, and according to the employees, the organisational culture in normalised small-scale nursing homes promotes the delivery of this tailored care as well. Furthermore, Declercq et al. (2007; 2009) show that employees have a lower risk of suffering from stress and burnouts. The risk of a burnout is measured based on the sub dimensions of emotional exhaustion, depersonalization and reduced personal accomplishment. For each of the sub dimensions, Declercq et al. (2007; 2009) indicate that it is better to work in normalised small-scale nursing homes. These results contradict the study done by De Rooij et al. (2012). De Rooij et al. (2012) do not examine job demands and job control, though they do look at stress and include the sub dimensions of burnout. In their study, no differences are found for stress, depersonalization and reduced personal accomplishment. Emotional exhaustion, however, appears to be higher among care workers in normalised small-scale nursing homes.

Table 11: Review findings, normalised small-scale living and quality of working life in Flemish nursing homes

Quality of working life	Comparison normalised small-scale and conventional nursing homes
Job demands • Quantitative workload • Qualitative workload • Emotional demands • Task variation	 lower higher / higher
Job control • Autonomy • Social support of peers and supervisors • Supply of information	 higher higher higher

Consequences
• Resident-oriented care
• Burn-out
  • Emotional exhaustion
  • Depersonalization
  • Reduced personal accomplishment
• Stress
	
	higher
	
	contradicting findings
	contradicting findings
	contradicting findings
	contradicting findings

5.7 Discussion

In the previous section, the results of four studies on job content in normalised small-scale nursing homes were described. When the results of the four studies are put next to each other, we notice unanimous conclusions on altered job demands and increasing job control. These are the findings:

- a quantitatively lower workload;
- a higher task variation;
- a qualitatively higher workload;
- more autonomy;
- more social support; and
- better information supply.

In short, normalised small-scale living seems a step in the right direction for the quality of working life in nursing homes.

However, there are also bottlenecks, namely:

- isolated workplaces; and
- excessive work intensity at specific times.

There was no unequivocality on the risk of suffering from stress and burnout (Declercq et al., 2007; 2009; De Rooij et al., 2012).

While solutions for the outlined bottlenecks are needed, further investigation to understand the conflicting results is necessary as well. What factors explain that one study shows a higher risk of

burnout and another study a lower rate? Does job design play a role, or is it rather because of the care workers' psychological characteristics? With regard to the bottlenecks, the research is rather design-oriented in nature: What measures can be taken and under which conditions are these effective? Specifically, one can think of the formation of care teams that are responsible for multiple resident units. That makes it easy to help each other when needed, and at the same time it can also be a solution for isolated work. Insights from modern socio-technology (Benders & Missiaen, 2013, chapters 3 and 5; Corvers & Van Hootegem, 2013, chapters 6 to 8; Offereins & Ten Have, 2016) could be useful for designing nursing homes in which care teams can function as autonomously as possible and manage their living units. An open question, that is left, is related to architecture: the design of buildings largely determines the size of the resident units and available facilities, and therefore the nature and extent of the work to be performed. Furthermore, the question arises as to how quality of working life relates to quality of care or quality of life in nursing homes. This concerns not only the ability to cope with high workloads, but also the effect of isolated work: is it better for the resident because the care worker is now primarily dependent on residents for social contact, or worse because of less peer interaction?

Although the findings from the various studies were largely unequivocal, there are still open questions with regard to working in normalised, small-scale nursing homes.

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CHAPTER 6. EX UNOS PLURES: HOW TOP MANAGEMENT ENACTMENTS OF ORGANISATION CONCEPTS EXPLAIN PRACTICE VARIATION

This chapter is based on: Vermeerbergen, L., McDermott, A., & Benders, J. (2017). Ex unos plures: How top management enactments of organisation concepts explain practice variation. Academy of Management Conference, Atlanta, 6-8 August.

Abstract

Why organisation concepts and associated management practices vary as they diffuse is of significant interest to researchers. Addressing calls for comparative case studies of practice variation across organisations, this study purposively identified twenty nursing homes. Each was a 'willing adopter' of same organisation concept - small-scale living - premised on three core characteristics. Interviews with top managers, observation and secondary data analysis illuminate the nature and extent of practice variation across the cases, contextual constraints faced by managers, and their agentic responses. Conceptually, findings emphasise that practice implementation is inherently heterogeneous and that variation is the norm rather than the exception. Theoretically, findings evidence how practice variation is influenced by the context into which concepts are introduced, mediated by managerial interpretations (full or partial buy-in) of the concept, as well as managers' agentic responses (alleviate, accept most, accept some) to constraints. The conjoint influence of context and agency leads to the identification of four forms of management enactment. Managers variously fully bought into the concept and worked to alleviate (purist) or accept (pragmatic) contextual constraints. Others purposively and intentionally modified the core principles (principled), whilst a final group fully acceded to challenges (poor). Each form of enactment is differentially associated with practice variation.

6.1 Introduction

> Sometimes I ask myself the question: am I an idealist, or just naïve? (Respondent)

This paper enhances understanding of how the adoption of the same organisation concept or innovation leads to the realisation of different outcomes across organisations – a phenomenon known as practice variation (Lounsbury, 2001). An extensive body of research has been accumulated on the spread of management innovations, fashions and concepts (Abrahamson, 1991; Ferlie et al., 2005; Rogers, 1995; Van de Ven et al., 1999). Yet concern with diffusion and convergence to similar ways of organising has led to insufficient attention being afforded to the factors explaining practice variation (Ansari et al., 2010; Fiss et al., 2012; Sine et al., 2005).

Two predominant explanations for practice variation are evident in extant literature. One set of studies emphasizes the influence of contextual constraints (Abelson et al., 2007; Lee & Lounsbury, 2015; Lounsbury, 2001; Oliver, 1991; Wischnevsky et al., 2011), whilst another details the impact of practitioners' characteristics and behaviors on practice realisation (Benders & van Bijsterveld, 2000; Benders & Van Veen, 2001; Giroux, 2006; Nicolai & Dautwiz, 2010; Vaccaro et al., 2012). This article takes account of both perspectives, considering management enactments and the context in they occur. It does so in a manner that addresses calls for comparative case studies of practice variation across organisations (Ansari et al., 2010) and the influence of managers on this (van Veen et al., 2011; Volberda et al., 2013). We intentionally focus on the role of top managers, as previous research has suggested that they can impact implementation outcomes (Damanpour & Schneider, 2006; Hansen, 2011; Kimberly & Evanisko, 1981; Vaccaro et al., 2012), due their capacity to influence decisions (Kieser, 1997) and access resources (Carpenter et al., 2004). Specifically, our study examines how top managers operate within their contexts to realise concept-driven management (rather than product) innovation.

Our contribution to the literature is two-fold. First, comparative analysis provides empirical evidence regarding the prevalence of practice variation. Second, considering the influence of context and managerial agency provides a comprehensive, configurational view of influencing factors. We illustrate how the realisation of an organisation concept is dependent on the contextual constraints evident, together with top managers' (1) efforts to alleviate, accept or accede to the constraints as well as their (2) interpretation of the concept to be implemented, in the form of full or partial buy-in.

The paper is structured as follows. The ensuing section provides the theoretical context for the study, considering organisation concepts, management innovations and practice variation. It then details extant research regarding the influence of organisational context and top management on practice realisation. Thereafter, the methods utilized in the study are described and the findings detailed, based on interviews with the top managers of twenty nursing homes, secondary data analysis and observation. The paper concludes with presentation of the conceptual and theoretical contributions, and identification of avenues for future research.

6.2 Theoretical context

6.2.1 Organisation concepts and practice diffusion

In this article we examine practice variation associated with the adoption of 'organisation concepts' (c.f. Heusinkveld et al., 2013). Further analogous concepts include 'management ideas' (e.g. Groß et al., 2015), 'management techniques' (e.g. Abrahamson, 1996), and 'management fashions' (Kieser, 1997; Giroux, 2006). Examples include total quality management (Zbaracki, 1998), lean thinking (Womack & Jones, 1996)(), and golden parachutes for CEO's (Fiss et al., 2012).

Such management innovations can be vary in scope. Some are incremental, premised on refinement of existing practices. Others are radical, differing completely from existing practices (Mol & Birkinshaw, 2014. They also vary whether they are new to the world such that they lack precedent, or new to the organisation (Birkinshaw et al., 2008). Newness is defined relative to the unit of adoption e.g. organisation (Birkinshaw et al., 2008; Damanpour, 2014; Mol & Birkinshaw, 2009). In addition to dimension of difference, a large body of literature identifies management innovations as having three distinctive shared characteristics (e.g. Ansari et al., 2010; Birkinshaw et al., 2008; Fiss et al., 2012; Scarbrough et al., 2015).

First, management innovations are complex rather than focal innovations (Ferlie et al., 2005). The impact of focal innovations, such as changing the medicine used to manage a specific patient condition, is limited to one area of practice. In contrast, complex innovations are systemic. They involve an interrelated set of changes that affect the way in which work is performed, manifested through new practices, processes, techniques, or structures (Birkinshaw et al., 2008).

Second, a change in the way that work is performed is necessary but not sufficient for an intervention to be classified as a management innovation. How the work is managed also needs to undergo substantial amendment (Volberda et al., 2013). Reflecting this, Kimberly and Evanisko (1981) argue that management innovations affect how decisions are made in organisations. This creates an important role for managers, who have high decision power relative to other stakeholders, and are both involved in influencing the innovation process, and affected by it.

Third, organisation concepts and management innovations often vary as they diffuse (Fiss et al., 2012; Sine et al., 2005), captured in the assertion that 'few practices, if any, come out of the diffusion process unchanged' (Ansari et al., 2010: 71). As noted in our introduction, although understanding is as yet incomplete extant research underscores the importance of taking account of organisational context and top managers' agency to explain practice variation. It is this to which we turn our attention in the next section. Importantly, in so doing, we avoid normative judgements of deviation. Often evaluations are premised on how faithfully organisations implement practices, captured in the use of terms such as

'fidelity' and 'accuracy' (c.f. Ansari et al., 2010; Yuan et al., 2007). Such terms imply that variation is deviant and unfaithful. However, variation is not necessarily unfaithful or inaccurate, exemplified in the DAF Trucks organisation (Benders and Slomp, 2009), which implemented a variant of the Toyota lean management concept to avoid bankruptcy.

6.2.2 Organisational context and practice variation

Studies using institutional theory have provided valuable insights into processes of practice variation (e.g. Ansari et al., 2014; Abelson, 2007; Wischnevsky et al., 2011). Explanations are premised on the different socioeconomic and institutional conditions evident across organisations (Abelson et al., 2007: Lee & Lounsbury, 2015). Some such conditions enable adoption of an organisation concept, whilst others act as hindrances. Ansari et al. (2010) use the term 'fit' to capture alignment between an organisational concept and the conditions into which it is introduced. This does not always occur. For example, Ansari et al. (2014) detail how misfits between a management practice introduced in a multinational aerospace corporation and the technical, political and cultural context of its subsidiaries resulted in some deviating from a faithful realisation (Ansari et al., 2014). As a consequence, the authors argue that fit enables faithful adoption, whilst 'misfit' can lead to partial or even non-adoption. Reflecting this, as the conditions that organisations face can vary, implementing the same organisational concept in different places can lead to divergent outcomes (Lounsbury & Crumley, 2007).

Importantly, studies of practice variation emphasize that organisations are not purely passive recipients of given environmental and organisational challenges (Greenwood et al., 2011; Oliver, 1991). Organisations can respond to the conditions they face, including in different ways (Lounsbury, 2001). Active influence can accommodate contextual challenges and engineer variation in the degree of implementation (Ansari et al., 2014). Thus institutional approaches illuminate that practice variation stems from both differences in the existing organisational and environmental conditions evident across organisations, as well as how organisations respond to these. Indeed, this issue of differential organisational responses to the same conditions leads neatly into our consideration of managerial agency in the ensuing section, emphasized in the second stream of research regarding practice variation.

6.2.3 Top management agency and practice variation

A series of calls for research on the impact of the micro-foundation of organisations on practice diffusion and variation (Damanpour & Aravind, 2012; Volberda et al., 2013; Volberda et al., 2014) reflect recognition of the potential role of human agency in (re-)shaping contextual conditions and adapting practices (Birkinshaw et al., 2008). In response, studies have begun to integrate consideration of human agency into institutional theory (Garud et al., 2007; Hardy & Maguire, 2008). Examples include studies

of 'institutional entrepreneurship' (Lounsbury & Crumley, 2007) and 'translation theory' (Van Grinsven et al., 2016), as well as studies concerned with agentic explanations for practice variation (Benders & van Bijsterveld, 2000; Benders & Van Veen, 2001; Giroux, 2006; Nicolai & Dautwiz, 2010).

Particular calls have been made to consider the influence of top managers on practice variation (Damanpour & Aravind, 2012; van Veen et al., 2011; Volberda et al., 2013), and we work to address these here. Top managers are decision makers in an organisations' uppermost layer of top management, with access to strategic and financial power and resources (Carpenter et al., 2004). These managers are often presented as passive recipients of organisation concepts (Benders & van Veen, 2001). This is surprising as they are key agents in practice adoption (Abramhamson, 1996, Kieser, 1997; Wilhem & Bort, 2013), whose characteristics, behaviors and enactments influence realisation (Damanpour & Schneider, 2006; Hansen, 2011; Heyden et al., 2015; Kimberly & Evanisko, 1981; Vaccaro et al., 2012). As summarised by Benders and Van Veen (2001, p. 41):

> Managers will not blindly copy concepts to their own situation but are capable of producing new contents and associations.

Integrating the two extant streams of literature on practice variation, the aim of this study is to specify the nature and impact of top managers' enactments of an organisational concept in twenty different organisations, on the variation in outcomes achieved. In so doing we recognize the initial efforts of others to elabourate managers' contextually embedded agency (e.g. Fiss et al., 2012), but emphasize outstanding potential to provide thick description and specification of managerial roles, in a manner addressing calls for comparative case analyses of practice variation (Ansari et al., 2010).

Three facets are of particular significance in considering managers' adaption as an explanation for practice variation. First is managers' interpretation of the organisation concept. These are often presented as coherent bundles of ideas (Benders & Van Veen, 2001), formulated in simple, abstract and ambiguous terms (Kieser, 1997). Often clear, detailed descriptions are lacking, such that there is 'interpretative viability'. Reflecting this Benders and van Bijsterveld (2000, p. 53) assert that

> a fashion's [organisation concept] impact on organisational practices lies in the first place in its interpretations rather than in its original content.

Thus, managers' interpretation of the organisation concept may help to explain how organisations adopting the same concept end up with different outcomes.

A second consideration is managers' rationales for deviating from the original concept or innovation. Scholars have noted both the potential benefits of adaptation, which can increase utility in context (McDermott et al., 2013), as well as potential disadvantages, including scope for adaptation to undermine the integrity or intention of the original practice (Ansari et al., 2010). A third and final consideration, emanating from the previous section, is managers' power and personal capacity to

respond to the organisational and environmental constraints previously detailed. The study was undertaken in twenty nursing homes adopting the concept of small-scale normalised living (subsequently referred to as 'small-scale living'). This is elabourated below, prior to discussion of the methods adopted in the study.

6.2.4 The focal management innovation/organisation concept

The concept of small-scale living aims to enable nursing home residents to live as normal and homelike a life as possible, given health conditions. The ideal-type of this model affords equal consideration to medical and social care (Verbeek et al., 2009a), and gives residents autonomy regarding how they live their lives (e.g. when to get up, what to eat). Three core organisational principles underpin the creation of a homelike environment (Baeckelandt et al., 2001):

- *Small resident groups*. Under this model, living units consist of six to fifteen residents (Rabig et al., 2006; Van Audenhove et al., 2003; Verbeek et al., 2009). This enables care workers and residents to build strong relationships, enhancing care workers' understanding of residents' preferences and enabling care workers to support individual autonomy. Scale is not an impediment to adopting this model, as larger homes can cluster their residents into smaller living units (Vermeerbergen et al., 2017).
- *Basic facilities in the living unit*. Each living unit needs to have their own homelike facilities, such as a kitchen, laundry room, living room and bathroom(s) (Verbeek et al., 2009; Rabig et al., 2006). Locating these facilities within each unit enhances residents' autonomy. For example, where residents do not like part or all of a daily menu, care workers and/or residents can cook something else.
- *Integrated jobs*. Workers need to have integrated jobs that include social and care tasks, and have decision-making autonomy (Te Boekhorst et al., 2007; Verbeek et al., 2009). This enables care workers to be responsible for the full care of a few residents. Strong interpersonal relationships support a homelike environment, further enhanced by empowered care (e.g. a night shift worker being able to agree to wake a resident at 11am, without having to check with a team leader or home manager).

Importantly, the second and third core principles are mutually reinforcing. Integrated jobs are enabled to having homelike facilities in each living unit. In contrast, centraliseed facilities lead to specialized jobs and reduce care worker capacity to support residents' autonomy.

6.3 Method

6.3.1 Empirical setting

The research was conducted in twenty nursing homes, each of which aimed to realise the same organisation concept – small-scale living. This enabled cross-case comparison of practice variation, contextual constraints influencing this, as well as the nature and impact of different managerial enactments.

Small-scale living was selected for empirical study for three reasons. First, the proportion of the European population aged above 64 will double before 2100, rising from 26 to 53 percent. (United Nations, 2015). This has led to enhanced interest in innovative forms of care provision, with diffusion of homelike and small-scale models of care evident across developed nations including Japan (Nakanishi et al., 2012), the U.S. (Rabig et al., 2006), Belgium (Van Audenhove et al., 2003) and Sweden (Malmberg and Zarit, 1993). Second, institutional complexity impedes the implementation of new organisation concepts in healthcare (Ferlie et al., 2005; Greenwood et al., 2011). Conducting the study in this highly constrained sector was purposive, as managers have an incentive to utilize agency to mitigate or challenge aspects of their context. Third, typically nursing homes in Belgium are small – with many having fewer than 150 residents (Charlot et al., 2009). Small-scale affords care home managers significant agentic power within their organisations, regarding whether to avoid, adopt or adapt a service innovation. In summary, this study was conducted in an empirical context characterized by a diffusing organisation concept, adopted in a highly constrained institutional context, in which the enactment of managerial agency should be evident.

6.3.2 Study design

A qualitative and interpretive research design was utilized, consistent with the exploratory orientation of the study (Yin, 2011). Reflecting calls for comparative case studies of organisational adoption and adaptation of organisation concepts (Volberda et al., 2014), a multiple case study design was selected. Comparative case studies provide a robust base for theory building, and create analytically generalizable findings grounded in empirical data (Yin, 2011). In this instance, the study design enabled mapping of practice variation in the implementation of small-scale living, and exploration of how contextual constraints and management enactments influenced this.

Located in the Flanders region of Belgium, the cases shared a similar environmental context. This enabled illumination of the influence of managers' enactments on the realisation of the organisation concept. Table 12 outlines case characteristics, including the number of residents (between 73 and 159) and staff (between 57 and 150). In every nursing home, more than half of the residents had cognitive

health problems. Three of the homes were public organisations and seventeen were not-for-profit organisations.

Table 12: Case organisation characteristics in chapter 6

Home characteristics / Case ID	Total number of residents in 2015[*1]	Number of residents with cognitive health problems 2015[*1]	Total number of employees in 2015[*2]	Year when small-scale living is implemented	Type of home	Network of homes which includes other small-scale homes[*2]
1	108	56	117	2012	Not-for-profit	1
2	124	112	165	2008	Not-for-profit	1
3	/	/	57	2015	Not-for-profit	1
4	82	55	82	2004	Not-for-profit	2
5	95	63	/	2011	Not-for-profit	3
6	107	90	/	2007	Not-for-profit	3
7	73	37	/	2011	Not-for-profit	3
8	86	61	108	2005	Not-for-profit	4
9	165	/	/	2012	Public	5
10	/	/	/	/	Public	6
11	138	75	/	2007	Not-for-profit	7
12	79	51	118	2011	Not-for-profit	8
13	197	96	/	2014	Not-for-profit	9
14	75	53	/	2001	Public	10
15	113	97	150	1985	Not-for-profit	11
16	94	36	134	2015	Not-for-profit	11
17	159	101	/	2010	Not-for-profit	12
18	110	58	113	2012	Not-for-profit	13
19	106	76	/	2013	Not-for-profit	14
20	48	47	45	1986	Not-for-profit	15

Legend: [*1] Flemish Agency for Health and Innovation; [*2] National Bank of Belgium [*2] 'Network' is here defined as a group of nursing homes which work closely together. They have for instance one financial manager or one centraliseed kitchen. Importantly, in these networks each home has an individual manager, which has a lot of decision authority.

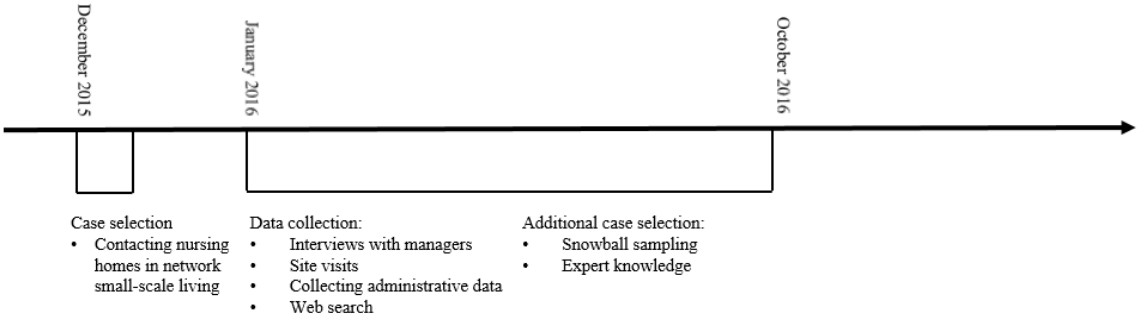
6.3.3 Data collection

The twenty nursing homes were purposively sampled as organisations who saw themselves as adopting small-scale living. This was significant, as it enabled consideration of how managerial enactment affected practice variation. Cases were recruited in three ways. Initially, members of a network of small-scale homes were contacted in December 2015. Thereafter, between January and April 2016, snowball sampling techniques were used to extend the sample. Specifically, during field work, managers were asked whether they knew of additional small-scale nursing homes. Last, research experts in small-scale living were consulted. Fourteen homes were recruited via the network, five via snowball sampling, and one via expert recommendation. These nursing homes, are to the authors' knowledge, the only ones in Flanders, which were realising the NSSL care concept.

The first author conducted face-to-face interviews with the manager of each nursing home. Managers were expert respondents, with knowledge of the organisation of care, including whether and how there was deviation from a full adoption of small-scale living. All but three of the managers had initiated the transition, and all faced the same external contextual constraints.

Secondary data regarding case characteristics were compiled in advance of each interview (see Table 12, generated using 59 relevant websites and 34 administrative reports). Supplementary interview prompts, for purposes of clarification, were generated in many instances. In addition, observational site visits of minimum one hour duration were conducted. The interviews were semi-structured, averaged two hours in length (ranging from one to four hours) and resulted in 41 hours of recorded material. The interview themes included: the realisation of small-scale living; constraints and enablers; management enactments. During the last interviews it became evident that saturation had been achieved, such that no additional novel insights were evident (Strauss & Corbin, 1990). The data collection process is summarised in Figure 13.

Figure 13: Data collection process in chapter 6



6.3.4 Data analysis

Data analysis was iterative. Respondents' narratives were coded for concept realisation, constraints and management enactments. Realisation of small-scale living was assessed by means of the three core principles, i.e. the number of residents per unit, the provision of facilities within living units, and the existence of integrated jobs. Secondary data and observational notes were used to triangulate interview data for this theme. Data was initially coded by the first author, and independently recoded by the second and third author. Based on the Gioia et al. (2013) methodology, each interview schedule was coded to identify first-order concepts, adhering to respondents' terms. Thereafter, the 'first-order codes' generated across the interviews were collated and thematically grouped to create second-order themes (i.e. subsuming the first-order codes). Last, third-order aggregate dimensions were identified. Figures 14 and 15 summarise the coding process for 'constraints and practice variation' and 'management

enactments and practice variation' respectively. Second-order concepts are evidenced in the ensuing section, with discussion elabourating the aggregate theoretical dimensions.

Figure 14: Coding overview and thematic analysis for constraints

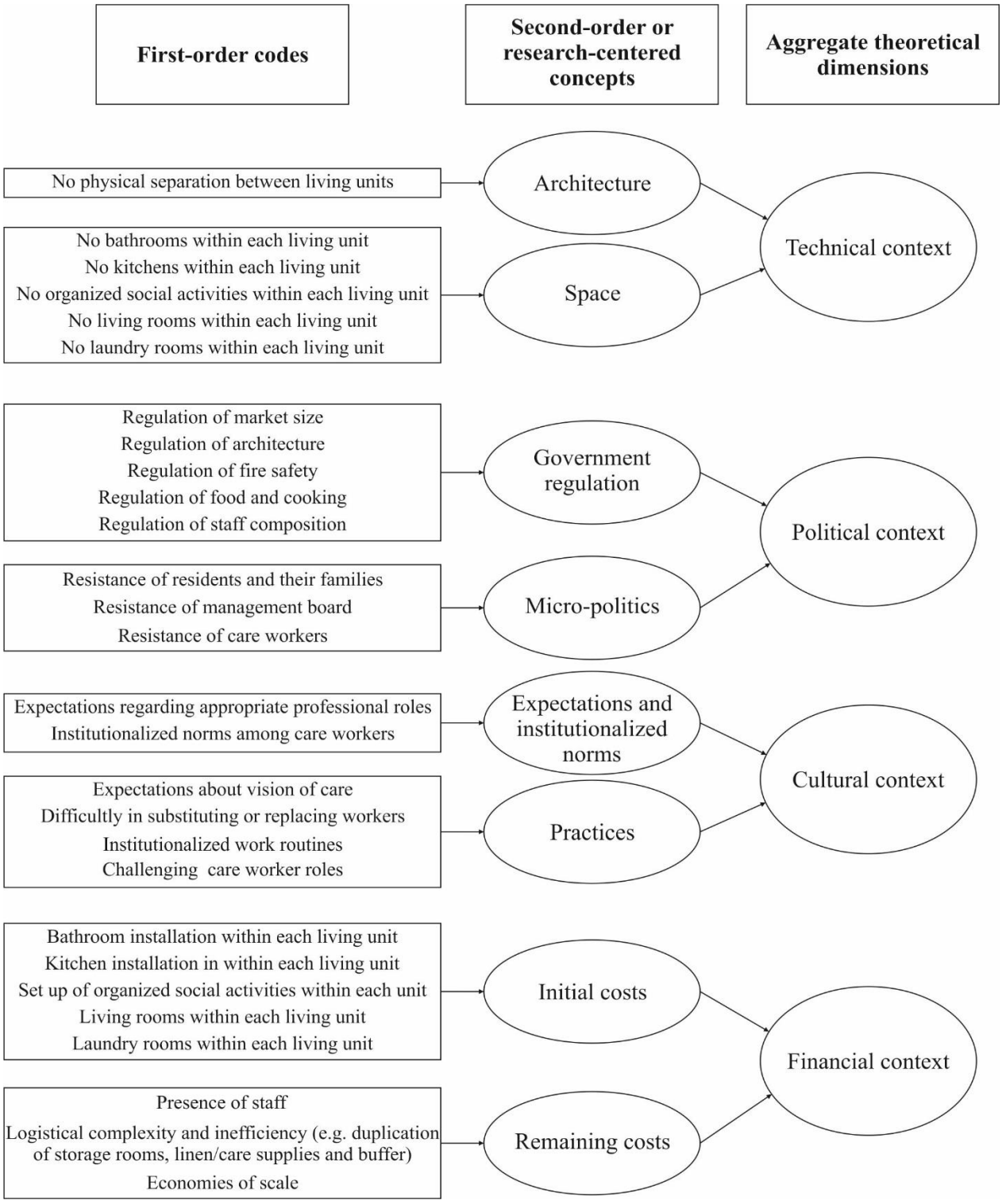
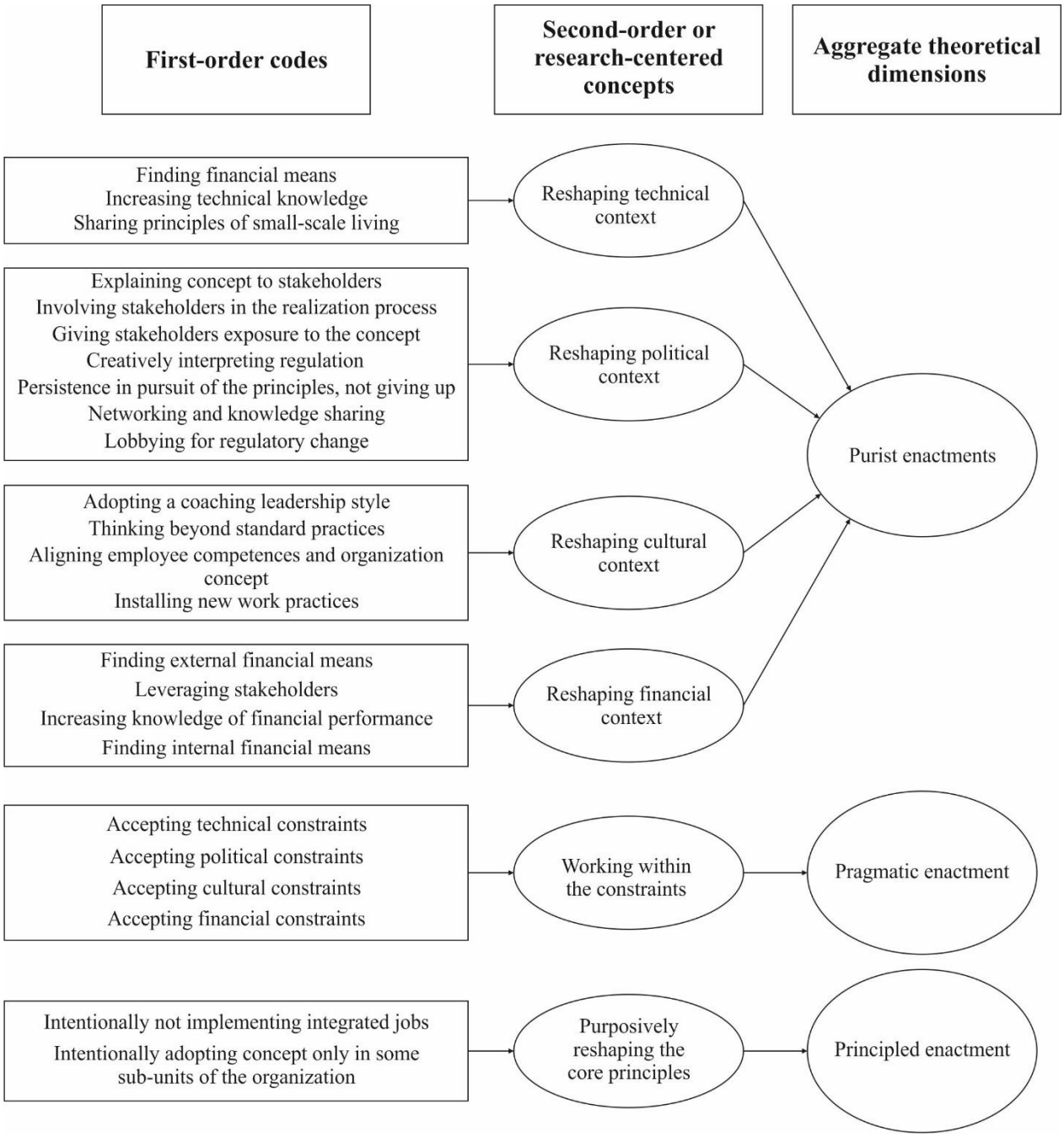


Figure 15: Coding overview and thematic analysis for management enactments



6.4 Findings

Findings are structured around three themes. First we consider practice realisation, emphasizing variation across the twenty considered cases. Second, we detail the contextual constraints managers faced, their implications for each of the core organisational principles of small-scale living, and consequential practice variation. Third, we explicate managers' enactment in the face of constraints, providing additional rich insights into practice variation. This final section also draws attention to

differences in managers' interpretations of the concept and core principles, which emerged inductively from the analysis.

6.4.1 Practice variation across the case organisations

Thirteen nursing homes implemented small-scale living across their whole organisation, while seven implemented it in a sub-section of their living units. In the latter instance, only data related to relevant units was incorporated in the analysis. Across the full sample, variation in the realisation of the three core principles of small-scale living was evident, detailed below and in Table 13.

The number of residents per living unit: Fifteen nursing homes had between seven and fifteen residents per living unit, and therefore realised this first core principle. Four of the five remaining nursing homes had between sixteen and twenty residents per living unit (with typical homes having twenty or more residents).

Basic facilities at the living unit: In all twenty organisations, the residents had washing facilities in their own room, or shared bathing facilities within their living unit. In eighteen cases, residents both ate and received their medication in the living unit. In sixteen cases there were organised social activities. More significant variation was evident for both laundry and cooking arrangements. In more than half the cases (11) laundry services were centraliseed. In six cases, there was a washing machine provided, such that laundry could be undertaken within the unit, but there was also a centraliseed laundry room. There were only three cases where all of the laundry for a living unit was completed within that unit. For cooking, one case cooked and served meals from a centralised kitchen facility. Fifteen organisations provided meals that could be heated in the living unit, with the implication that there was a kitchen provided. Meals were fully prepared within the living unit in four organisations. In summary, this core principle was not fully realised in a majority of nursing homes, although some attempted to find a hybrid solution (e.g. centraliseed service provision, with facilities also provided within living units so that residents could independently avail of services, as required).

Integrated jobs: Only three nursing homes had fully integrated jobs, such that care workers had significant decision authority, and fulfilled all social and care tasks. Eleven cases had predominantly integrated jobs where care workers had medium to high decision power as well as broad task packages that included a majority of social and care tasks. Six cases had somewhat integrated jobs, such that care workers had low decision power and a subset of narrow tasks. In summary, only three care homes fully realised this core principle, eleven somewhat realised it, and six slightly realised it.

Table 13: Detailed practice variations of small-scale living

Core principles			**Number of homes where present**
Low number of residents per living unit	6-15 residents per living unit		15
	15+ residents per living unit		5
Basic living facilities within living unit	Eating		18
	Medication		18
	Washing		20
	Animation		16
	Laundry	Everything is washed in the living unit	3
		Facilities for washing available in the living unit	6
		Everything washed in a centraliseed laundry room	11
	Cooking	Meals cooked in the living unit	4
		Meals heated in the living unit	15
		Meals cooked in central facility	1
Integrated jobs	Fully integrated		3
	Somewhat integrated		11
	Slightly integrated		6

Having examined the practices in isolation, our next analytical step was to cluster variation in the sets of practices evident across the cases. Three groups were evident, reported here and summarised in Table 14: organisations reaching all principles (3 cases); organisations achieving the first principle relating to having fifteen or fewer residents, but failing to provide integrated jobs, or the requisite facilities within residents' living units (13 cases); and organisations failing to reach any of the three core principles (4 cases). In the second group, five of the fourteen cases were close to full realisation of homelike facilities, attaining 5 of 6 required facilities. Next we consider the contextual constraints that influenced the significant variation evident in the realisation of small-scale living.

Table 14: Clustered practice variations in normalised small-scale living

	Cluster 1: reaching all core principles	**Cluster 2: reaching some core principles**	**Cluster 3: reaching none of the core principles**
Small living units	Yes	Yes	No
All basic facilities at living unit	Yes	No	No
Fully integrated jobs	Yes	No	No
Number of homes	3	13	4

6.4.2 Contextual constraints and practice variation

The top managers reported a high volume of constraints affecting whether they implemented all, some, or none of the core principles. These are grouped in accordance with the second-order concepts that emerged from the cross-case analysis (see Figure 14).

6.4.2.1 Built environment: Architecture and space

The *architecture* of the built environment significantly influenced practice variation. Prior to committing to the concept of small-scale living, many nursing homes had care units serving significantly in excess of fifteen residents, organised around long hallways. This architecture was a physical impediment to the provision of small-scale living. It often proved impossible to sub-divide these corridors (e.g. middle units would have lacked access if rooms were subdivided). Yet failure to physically sub-divide units enabled residents and care workers to move between them, such that formally separated units merged into informal large living groups. This undermined the first and third core principles of small-scale living (low resident numbers and integrated jobs). In addition to a concern with the layout and physical division of the living units, managers noted that space for duplicating living facilities within each unit was a particular barrier to the second core principle of small-scale living (basic living facilities within each living unit), with knock-on consequences for attainment of the third principle (integrated jobs).

> An essential condition is that the living area consists of three parts. A kitchen, a seating area and a relaxation area. (…) if you can create that, all the rest is of secondary importance. (manager A, cluster 2)

Thus, the built environment had capacity to enable or constrain enactment of all three core principles of small-scale living, reflected in one managers' assertion (manager B, cluster 2) that '*The architecture is* ***the*** *condition to give your team the space to do their thing.'*

6.4.2.2 Organisational environment: Regulation and micro-environment

Government regulation was identified as a major constraint on adopting small-scale living by all of the managers in the sample. Managers reported that regulation regarding minimum room size ($25m^2$) was challenging. They argued that because residents in small-scale living units have enhanced space in their common areas, there is scope for their rooms to be smaller. Managers perceived minimum room size as a constraint on enabling reduced numbers of residents within living units (the first core principle), especially where organisations lacked sufficient space to provide basic living facilities in each unit (second core principle). A further challenge to the second core principle was evident in regulation regarding fire safety and food storage, which impeded cooking in each unit:

> The Federal Food Agency imposes a lot of rules. (…) That is why organisations stop implementing small-scale living. (…) In a kitchen you cannot put everything (…) together in one fridge. That's all fixed, and also concerning the tags you have to put on food to know their freshness. It requires a lot of energy. (…) The problem is that the agency judges us like large catering kitchens. (manager C, cluster 2)

In consequence, some homes centraliseed kitchen facilities within their organisation, or outsourced catering to other organisations. Last, the third core principle, relating to integrated jobs, was constrained by government regulations regarding the composition of staffing, managed via funding mechanisms that impeded recruitment of generalists.

Depending on the KATZ score [scale for rating the care burden of residents] you get your resources. Then they [the government] say: *"you [management] have so many residents in categories A, B and C. So you are entitled that many nurses, occupational logos, animation, etc". But in normalised small-scale living I [management] do not need that many nurses. I believe more in staff trained with a social education profile, because I want to go away from the medical care view. Actually, I (...) have to hire nurses. (...). I advocate that I have more freedom to recruit staff. (manager C, cluster 2)*

Internal *micro-politics* also impeded realisation of the three core principles of small-scale living. Different sets of concerns were evident across stakeholder groups. Boards raised concerns regarding financial performance, job quality, and the quality of care provided to residents. Residents and their families raised concerns about the implications of the new service model for the quality of care provided. Whilst workers were often anxious about their own quality of working life, and the mode of care-giving, evident in the assertion that:

> Every decision we had to make was introduced after two months of resistance. So it was kind of a struggle with our employees. (…) People were just scared because they did not know what was coming. You may theoretically say that it is going to be better for you [care workers] and for the residents. But you [manager] cannot say that, you [manager] do not know that for sure. (manager D, cluster 1)

Thus, managers faced constraints from the political context without and within their organisations Next we consider the role of employees' expectations and organisational practices.

6.4.2.3 Behaviors and practice: Expectations and institutionalized norms, and organisational practices

Here, professional *expectations and institutionalized norms* regarding appropriate tasks, together with concerns regarding organisational and work *practices,* influenced capacity to realise the third core

concept (integrated jobs). Specifically, many care workers preferred to utilize specialist professional skills, succinctly captured by one manager, who noted that:

> Someone who has studied to become a nurse tends to lack ambition to stand by a stove. (manager E, cluster 2)

Some employees found the transition to enhanced autonomy challenging:

> Care employees often ask questions [when they don't have to]. And then sometimes these are referred up the hierarchy. Often, however, that is just a hangover from our previous routine. (manager B, cluster 2)

In addition, managers noted the difficulty of making integrated working safe and sustainable. Managers feared that care workers experienced isolation, and low supervisory and peer support:

> Working alone for eight hours with your residents. That's damn heavy. You have no social contact. The workers who are employed in normalised living homes have also no framework of reference [for how others do things]. (…) Care workers are lucky when they get on with each other. (manager F, cluster 3)

Substitutability of workers was a related challenge. Due to the small numbers of workers within each unit, workers can be hard to replace in the event of illness or interpersonal disagreements. This is exemplified by comparison to a conventional nursing home, where ill workers are replaced by colleagues from their own team, or supervised students. In contrast, in small-scale living scenarios, students lacking supervision are too inexperienced to work alone. Last, organisational practices served as a constraint on the second as well as third core principle. For example, care workers required enhanced competencies – necessitating additional training - to enact their integrated roles.

6.4.2.4 Initial and ongoing cost

Two type of costs proved challenging for managers, and induced practice variation, namely *initial outlay*, and *ongoing costs*. Initial outlay was a particular barrier to realising the second core principle, the provision of basic facilities in each living unit, in its pure form. However, ongoing financial pressures were also evident, associated with increased staff-resident ratios:

> …obliges you to employ more staff than in conventional homes (...) If you have a hallway with 60 residents, one staff member is sufficient when it is quiet. In small-scale living that is not possible. (manager E, cluster 2)

Further increases in ongoing operating costs related to the need for duplicated buffers of supplies in each living unit (e.g. cleaning materials, linen, medical and incontinence materials) and the removal of economies of scale (e.g. centraliseed laundry/kitchen).

> a centralised kitchen, that gives certain savings. (manager G, cluster 3)

Having detailed the wide range of contextual constraints identified by respondents across the cases, we turn to consider the contribution of top managers' enactments to practice variation. As becomes evident, implicit in these enactments are managers' interpretations of the organisation concept and its underpinning principles.

6.4.3 Top managers' enactments and practice variation

In presenting our findings we draw on the second-order concepts identified in Figure 15. We note that some managers worked to realise small-scale living and its three underpinning principles in their pure form, while others implemented it in modified form. Reflecting this, we first focus on managers' use of agency to reshape aspects of the context to realise the core principles, before considering alternative approaches, in the form of working within the constraints, and purposively reshaping the core principles.

6.4.3.1 Reshaping the technical context

Managers used their agency to reshape the built environment in two ways. First, they sought required financial resources (i.e. to multiply basic facilities and change the architecture). Some managers entered multi-annual savings plans. Many others proactively applied for external funds. Second, managers sought expertise on technical issues, e.g. visiting other small-scale nursing homes to gain insight into different structural arrangements. They used their enhanced expertise to share and defend the core principles, exemplified in one manager vetoing a traditional building design produced by an architect:

> The architects had already drawn plans for a new traditional nursing home. They had come up with no significant amendments, other than to put a kink [right angled turns] in the long hallways. Those plans, they were all put in the bin. I [management] didn't want any long hallways. The architects have started from scratch. (manager H, cluster 2)

6.4.3.2 Reshaping the political context

Managers also used their agency to alleviate macro and micro political constraints, within and without of their organisations. Within their organisations, stakeholder resistance was typically managed in three ways. First, managers worked to explain and educate stakeholders regarding the concept, writing reports and making presentations on the benefits. Second, managers involved stakeholders in the planning

process, with some starting project groups to consider to optimize and implement small-scale living. Third, managers worked to bring stakeholders on board by organising site visits and work placements, or introducing the concept in stages.

> I organised a two-day trip to the Netherlands to look at what normalised small-scale living entails in practice. […] There were directors, financial people, general managers, but also care workers. (manager I, cluster 2)

Turning to the external political context, managers worked to alleviate regulatory constraints in four ways. First, managers creatively interpreted regulatory ambiguities. For example, one manager linked four living units to reduce staffing requirements. Second, managers shared knowledge regarding how others were dealing with regulatory constraints. Third, managers networked and collabourated in lobbying to change extant regulation:

> Together with the other small-scale homes, we [managers] tried to present to the Minister of Social Affairs and Health a manifesto, a blueprint with the aim to modify certain standards. All nursing homes are subject to standards. But those standards are inadequate for normalised small-scale homes. (…) And for that, we [managers] are pretty much lobbying. (manager J, cluster 1)

Last, managers recognized that influencing the political context was a not a short-term exercise, and emphasized the importance of persistence and staying power.

6.4.3.3 Reshaping the cultural context

Managers also used their agency to reshape contextual constraints. Managers had to support the creation and alignment of worker competencies with the demands of small-scale living, creating new expectations and work norms via their management practice as well as more formal training sessions. Many managers adopted a coaching orientation in working to change expectations and norms of behavior, devolving decision-making authority to care workers, whilst also reminding them of small-scale living and its core principles. However, the new culture was more strongly reinforced via employee turnover where necessary:

> You have leavers […] where you [manager] have to let the care worker know that you'd prefer them to go elsewhere. We've had some turnover because we saw that some workers did not fit (manager K, cluster 1)

Managers also had to work to address new challenges introduced by reshaping the cultural context, e.g. ensuring substitutability of workers. One example of this was the creation of a mobile team to replace ill care workers. Another example, evident in three cases, was the decision to only offer care workers part-time contracts:

We never give staff a full-time contract. We give employees part-time contracts. If someone is sick than it has less of an impact on the division of work. It is also easier to find a replacement. (manager L, cluster 2)

6.4.3.4 Reshaping the financial context

As previously noted, managers worked to alleviate constraints in the financial context – setting up savings plans, and working to leverage external funding to finance architectural changes. In addition, managers worked (often innovatively) to reduce costs, as exemplified here:

> We [management] are now developing our own motion detectors (...) We have for example made a motion sensor that only costs 75 euros, otherwise they costs 500 euros each. (manager C, cluster 2)

However, loss of economies of scale and the requirement for additional workers meant that higher ongoing running costs endured. A key coping strategy was managers increasing their financial skillset, collecting data and producing evidence-based reports to illustrate trade-offs and benefits, such as enhanced quality of care. Managers also attempted to reduce ongoing costs – for example, using social employment or volunteers to reduce payroll costs:

> holding the staff/resident ratio level was not feasible. We now have paid [expenses] volunteers for two hours per day in each unit. So we search for creative solutions. (manager M, cluster 2)

Additional strategies including increasing revenue, via higher per diem rates for residents.

6.4.3.5 Modified enactments: working with constraints and purposive reshaping

Whilst many managers strove for full implementation of small-scale living, modified enactments were also evident. Some managers were accepting of the constraints faced, and didn't proactively seek to reshape their contexts. Others were accepting of some constraints, but worked to alleviate others. In both instances, failure to mitigate, reshape or circumvent (some or all) contextual constraints resulted in deviation from the core principles of the organisation concept. Importantly, in the managers' view, their homes were still employing – in so far as constraints allowed – the core principles of small scale living. For example, some managers didn't try to circumvent regulations regarding staffing composition or search for external funding, cost-cutting strategies or save sufficient funds to provide basic living facilities in each unit. An example in the cultural context is the following:

> We also organised a survey among our care workers. We asked whether they would choose: a home where you [care workers] would work alone or a home where you [care workers] work

with two. (...) The preference was obvious. Please ensure that we [care workers] do not have to work alone. (manager E, cluster 2)

6.4.3.6 Changing the concepts' core principles

Some managers purposively deviated from a full realisation of the organisation concept. For example, one manager with a nursing background valued medical specialization and associated learning opportunities. They intentionally maintained a narrow job design for nurses. For another manager, cleanliness was paramount and required dedicated and skilled staff:

> Interior [cleaning staff] is a separate team. (…) Cleaning is not about throwing around buckets of water. It is quite technical. So many milliliters of cleaning products. (...) Workers get special education for it. That it is clean is really important for me [manager]. I like to have a clean house. (manager A, cluster 2)

Managers' interpretations and beliefs regarding what was important also influenced realisation of the core principles. This is evidenced in whether the whole nursing home or just a part was working with core principles of small-scale living. Five managers believed that small-scale living only increased quality of life for residents with dementia. As a result, it was only implemented in relevant units. Counter to this, another manager asserted that:

> People who are more advanced in dementia (…) no longer receive value [a higher quality of life] from small-scale living (…). For instance, I [manager] will move [towards a conventional living unit] a lady who has a heavy reliance on care. (manager N, cluster 2)

One manager was highly concerned about isolated working:

> I shudder to think of letting care workers work alone. (...) The smaller the domestic unit [the more resident centred, but worker isolated], so you need to find the golden mean [to balance worker and resident needs by increasing the number of residents per unit]. (manager E, cluster 2)

Reflecting the above, managers' interpretations and purposive deviations related to the relevance of the overarching concept and the integration of work roles. Notably, managers did not purposively modify two of the core principles - the presence of basic facilities in each living unit, and the number of residents per unit. Where managers failed to meet these conditions, it was due to constraints faced.

6.5 Discussion

The extent of practice variation evident across the twenty considered cases is significant, given the purposive selection of 'willing adopters'. Only three of the twenty organisations fully implemented all

three core principles of small-scale living, with thirteen attaining at least one principle, and four failing to attain any.

To explain practice variation, analysis of contextual constraints identified eight second-order concepts, relating to the technical, political, cultural and financial context of the organisations (as per the aggregate theoretical dimensions illustrated in Figure 14). We summarise these here, before considering the range of contextual constraints affecting each core principle. Technical context refers to the technological environment and systems that affect practice adoption (Ansari et al., 2014), and the respondents identified *architecture* and *space for multiplication of facilities* as key constraints in that regard. Political context refers to the power structures, interests and agendas of stakeholders in the environment to which a practice is introduced (Ansari et al., 2014). Key aspects of the political context noted by the managerial respondents included *government regulation* and *micro-politics*. Third, cultural context refers to the values and norms of behaviors in the environment in which the practice is introduced. Here, professional *expectations and institutionalized norms* regarding appropriate tasks, together with concerns regarding organisational and work *practices*, influenced capacity to realise integrated jobs. Last respondents emphasized the importance of the financial context, relating to the available resources in the environment in which the practice is introduced. Two type of costs proved challenging for managers, and induced practice variation, namely *initial outlay*, and *ongoing costs*. Importantly, these contextual factors provided multiple and sometimes concurrent constraints on managerial enactment of the overarching concept as well as the three core principles, as illustrated below.

The first core principle, the attainment of low numbers of residents per living unit faced challenges from the technical context, in the form of the physical architecture of the organisations. Creating an appropriate built environment had potential to create knock-on cultural constraints, associated with changes to work norms and practices, and problems with worker substitutability. The political context, and regulations regarding room size in particular, impeded moving to smaller units where organisations lacked sufficient space to provide large rooms and duplicated living facilities. Last, the financial context was a constraint on achieving low numbers of residents per unit, due to high initial required outlay.

The second core principle, the introduction of basic facilities within each living unit was constrained by the technical context, in the form of physical space for provision of living facilities. The political context constrained the provision of basic facilities in each unit via regulatory requirements (e.g. re fire safety, food storage), and tensions between providing regulatory compliant (large) rooms for residents, as well as shared space. Cultural constraints related to the need for additional training and skills among workers, and the establishment of new patterns of working associated with having basic facilities within each unit. The financial context constrained the initial outlay associated with multiplication of facilities across units.

The third core principle, the enactment of integrated jobs faced challenges from the technical context, in the form of the built environment. Physical subdivision of housing units was required for integrated roles to work. The external political context also served as a constraint, via government regulations regarding staffing composition. Further micro-political concerns were raised by staff, and substitutability of workers was a consistent challenge. The cultural context also influenced the introduction of integrated jobs, with professional expectations and institutionalized norms regarding appropriate tasks serving as a constraint. Last, the financial context served as an impediment to integrated jobs, due to ongoing financial pressures associated with increased staff-resident ratios.

Thus, the analysis explicates the complexity of contextual constraints faced by managers in enacting organisation concepts. The organisations faced different challenges, such that adoption was more difficult in some organisations than others. However, all four aspects of context had potential to constrain the enactment of each of the three core principles – sometimes via the creation of additional knock-on challenges. The financial context was also identified as a potential barrier to the sustainability of the concept. Next we transition from considering context, to the influence of managerial agency on practice variation.

We examined the influence of top managers' enactments on practice variation and initially identified two forms – faithful and modified. However, iterative interrogation led to the identification of four categories of enactments – purist, pragmatic, principled and poor. The elabouration resulted from identification of two drivers for modifying the core practices – pragmatic modifications in the face of contextual constraints, and principled modifications premised on managers' perceiving deviation as an improvement. The fourth category of 'poor' enactment reflects failure to achieve any of the three core principles in four of the considered cases (despite their status as 'willing adopters'). As evident in Figure 16, managers' interpretations of the organisation concept (full or partial-buy-in), together with their response to contextual constraints (e.g. alleviate, accept some, accept most) lead to four forms of managerial enactment, associated with differential levels of practice implementation that underpin practice variation. The grey shades in the figure show whether the organisation concept is realised fully or partially. How darker the grey shade, how more fully the concept is realised in practice.

Figure 16: Factors influencing practice implementation and variation

Managerial Enactments	Purist	Pragmatic	Principled	Poor
Interpretation of Concept	Full buy-in	Full buy-in	Partial buy-in	Partial buy-in
Dominant Response to Constraints	Alleviate	Accept some	Alleviate some	Accept most
Practice Realization	Majority	Some	Adapted	Little

At one extreme, thirteen managers fully bought into the concept. Within this group, two forms of enactment were evident. Those undertaking '*Purist enactments*' strove for a full implementation, working to alleviate contextual constraints to enable strict adherence to the three core principles. These managers achieved all or a majority of the principles (see also quotes of managers D, J and K). These are the managers of the three nursing homes in cluster 1 of Table 14. A second group of managers also fully bought into the concept. However, they were accepting of at least some constraints - although they may have worked to alleviate others (see also quotes of managers B, C, H, I, L and M). As a result, they undertook '*pragmatic enactments*' – implementing 'feasible' aspects of the three core principles, resulting in some of the core principles being realised. These are the managers of ten out of the thirteen nursing homes in cluster 2 of Table 14.

Other managers only partially bought into the concept. Some purposively amended the core principles, with the intention of enhancing them, resulting in '*principled enactments*' – resulting in at least some practices being adapted (see also quotes of managers A, N and E). This made some constraints irrelevant, although managers did work to alleviate and in some cases accept some others. These are the managers of three out of the thirteen nursing homes in cluster 2 of Table 14. Last, some managers partially bought-into the concept yet accepted most or completely acceded to constraints, resulting in '*poor enactments',* with few or none of the core principles being enacted (see also quotes of managers f and G). This group consists of the managers of the four nursing homes in cluster 3 of Table 14.

Taken as a whole, this analysis illuminates the important role that context, in the form of technical, political, cultural and financial constraints, plays in influencing practice variation. However, more significantly, it evidences that such constraints are not alone responsible for outcomes. Rather, their effect is mediated by managerial interpretations of the organisation concept in question, and their related agentic responses to the contextual constraints. Managers' decisions regarding whether to accede completely to constraints; to accept them and work within their limitations; or to work to alleviate them is crucial. Thus, context and agency together help to explain why practices vary as they diffuse.

6.6 Contributions and conclusions

We contribute to the literature in three ways. Empirically, our comparative analysis of twenty case organisations adds to understandings of practice variation. It addresses calls for '*Research through comparative case studies not just across practices but also across organisations'*, to *'provide important insights into processes by which adoption, adaptation, and diffusion of different types of practices occur*.' (Ansari et al., 2010). Previous studies of organisational concepts have been conducted in single or small numbers of organisations, exemplified in Ansari et al.'s (2014) study of the subsidiaries of a multinational aerospace company. In this study the use of a comparative case study design illuminates the nature and extent of practice variation across a set of willing adopters, as well as how this derives from the combined effects of contextual constraints and managerial agency.

Conceptually, the findings emphasize that practice implementation is inherently heterogeneous and that variation as the norm, should be afforded primacy as the de facto starting position for studies of implementation and diffusion. Historical attention afforded to practice homogeneity and isomorphism (DiMaggio and Powell, 1983; Fiss et al., 2012; Sine et al., 2005) is now complemented by recognition of heterogeneity, such that practices vary when implemented across organisations (Ansari et al., 2010, 2014). Yet many studies continue to focus on fidelity or accuracy in evaluating adoption (Ansari et al., 2014). In contrast, our findings suggest that variation is the rule, and faithful adoption the exception. Here, only two of twenty purposively selected 'willing adopters' realised full practice adoption. The strength and volume of constraints faced, together with different agentic responses and change capacity, problematizes the idea that organisational concepts or management innovations can diffuse in their original or 'pure' form.

Theoretically we add to explanations of practice variation. Extending Ansari et al.'s (2010) use of technical, political and cultural context, we highlight financial context as a particular constraint, with overarching and interdependent implications for other aspects of context. In focusing on top managers we answer recent calls for detailed study of how managerial roles impact practice variation (Damanpour & Aravind, 2012; van Veen et al., 2011; Volberda et al., 2013). Most notably, in considering context *and* agency we progress the growing literature focusing on how institutional forces (Abelson et al., 2007; Greenwood et al., 2011; Lounsbury & Crumley, 2007; Oliver, 1991) or local practitioners (Benders and Van Veen, 2001; Nicolai and Dautwitz, 2010) influence heterogeneity in practice adoption. Specifically, we evidence both the independent and *configurational* impact of contextual forces and managerial agency. Practice variation was affected by the technical, political cultural and financial context into which concepts were introduced, mediated by managerial interpretations (full or partial buy-in) of the organisation concept, as well as agentic responses (alleviate, accept, accede) to constraints. Managers' response to constraints had capacity to reshape the context, removing or reducing contextual barriers. Combinations of these factors led to the identification of four forms of managerial enactment – purist, pragmatic, principled and poor, associated with different levels of practice variation. Purist enactments

led to a full or majority implementation of a concept, whilst pragmatic enactments led to partial adoption. Principled enactments led to adapted adoption, with little realised as a consequence of poor enactments. Thus, understandings of practice variation are enriched by our elabouration of management enactments, underpinned by concurrent consideration of context and agency.

We outline four future research directions. First we note that our study considered top managers' influence on practice variation. These managers have high decision latitude and access to resources. Previous studies have identified how the agentic power of professional groups influences the organisation of work (Ferlie et al., 2005; Kellogg, 2009). Future studies may expand our focus by looking whether and how the enactments of these groups influence practice variation by interacting with existing contextual constrains.

Second, the focal case organisations were small health care organisations, with few hierarchical layers. Previous studies have identified the influence of management board composition and function (e.g. Bantel and Jackson, 1989), as well as the relationship between different management levels (Heyden et al., 2015), on how concepts diffuse within and across organisations. Future research may fruitfully examine managerial enactments in larger and more complex organisations than those considered here.

Third, previous studies have detailed the influence of managerial characteristics and attitudes on the diffusion and implementation of organisation concepts (Damanpour & Schneider, 2006; Hansen, 2011; Kimberly & Evanisko, 1981; Vaccaro et al., 2012). Future studies could enhance understanding of the skills, abilities and motivations corresponding to each of the four forms of enactment identified here.

Last, in this study we showed that organisation concepts inherently vary when implemented across organisations. We encourage future studies that examine the impact of inherent practice variation on practice diffusion. Do organisations that partially adopt a concept, influence the way in which other organisations implement the same concept?

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CHAPTER 7. VARIATION IN ORGANISATIONAL DESIGN IN NORMALISED SMALL-SCALE LIVING NURSING HOMES: IMPLICATIONS FOR RESIDENTS AND STAFF

This chapter is based on: Vermeerbergen, L., McDermott, A., & Benders, J. (2017). Variation in organisational design in normalised small-scale living nursing homes: Implications for residents and staff. International Workshop on Teamworking 21, Trondheim, 6-7 September.

Abstract

Increasing demand for resident-oriented care in nursing homes has induced innovation in the organisational forms used to deliver it. One such innovation – evident but labelled differently in a variety of nations - is normalised and small-scale living (NSSL). With a limited number of residents sharing each living unit, the model offers a homelike environment. It also aims to support residents to live as close as possible to an everyday life, albeit within an institutional context. Recent review studies suggest that NSSL enriches both residents' living conditions and employees' working lives. However, the reviews also identify conflicting results across studies. One explanation for the inconsistent findings is neglect of differences in the organisational design of NSSL within the extant literature. As a result, this study utilises a comparative case approach to empirically examine (1) alternative approaches to the intra- and supra-unit organisation of work in NSSL nursing homes and; (2) potential implications for residents and staff. Data was collected from 20 Belgian nursing homes between January 2016 and September 2017. Secondary administrative data, primary observational data from site visits, and interview data from nursing home managers were gathered from each site. Analysis considered the division of work within and between living units, the organisation as a whole and external providers. Substantive variation was evident, with five clusters of nursing homes identified. At one extreme, a dedicated team took responsibility for all personal and social care tasks for residents in a living unit. At the other extreme, staff and residents within living units were heavily dependent on other organisational and/or external service providers. Discussion notes potential trade-offs in the implications of organisational designs on residents and staff. Future research should further interrogate implications for a range of outcomes, including the quality and cost of care for residents, and job quality for staff.

Keywords: nursing home; green house; normalised small-scale living; organisational design; division of work; qualitative research; implications

7.1 Research highlights

- Nursing homes increasingly deliver care in homelike (i.e. normalised) environments
- Mixed findings re benefits may arise from assumptions of a unitary model
- Findings evidence five clusters of variation in organisational design
- Tradeoffs arise in the implications of different designs for residents/staff

7.2 Introduction

The greying of industrial societies is leading to rapid growth in demand for residential and nursing home care (Zinn et al., 2009) and prompting innovation in the organisational forms used to deliver it (Adams, Verbeek, and Zwakhalen, 2017; Kane et al., 2007). In Western countries, historical evidence of suboptimal quality of life and care in large-scale nursing homes (Clark and Bowling, 1990; Cohen et al., 2016) has prompted a shift towards alternative forms. As a result, this article focuses on one innovative resident-centred model of care, evident in a variety of nations. Although labelled differently, 'Green Houses'(Zimmerman et al., 2016) in the US, group homes in Japan (Nakanishi, Nakashima, and Sawamura, 2012), group living in Sweden (Annerstedt, 1993), Wohngruppen in Germany (Dettbarn-Reggentin, 2005) and normalised small-scale living (NSSL) nursing homes in Belgium (Vermeerbergen, Van Hootegem and Benders, 2016) all share a common concern with affording residents the opportunity to lead as close to a homelike life as possible, within an institutional context (Nirje, 1992).

Recent systematic review studies (Ausserhofer et al., 2016; Vermeerbergen, Van Hootegem, and Benders, 2017) have found that NSSL nursing homes lead to enhancements in the quality of care residents receive and the life they enjoy. NSSL also has benefits for staff, improving their quality of working life. Despite - on balance - these positive outcomes, both reviews identified conflicting results across studies. One explanation for divergent outcomes, suggested by organisational design theory and supported by empirical studies in health (Kalisch, and Begeny, 2005) and other sectors (Kuipers, De Witte, and van der Zwaan, 2004; Melin et al., 1999), is the embeddedness of small-scale living units in larger organisations. However, to date, studies of NSSL have prioritised intra-unit level analyses, with a deficit of attention afforded to the broader organisational context within which living units are embedded. As a result, the aim of this study is to explore the organisational designs present in small-scale and homelike nursing homes. The organisational design literature has roots in sociology and organisation studies, and in this sense responds to calls from within this journal to use both to enhance understanding of healthcare organisation and delivery (Currie et al., 2012). Findings demonstrate variation in both the NSSL units and the organisational contexts in which they are emplaced, explore the reasons for this, identify clusters of organisational design decisions, and detail implications for

residents and staff. Key differences in the supra-unit organisation of work relate to (1) whether and which tasks are centralised or externalised; (2) whether service teams are present and; (3) levels in the organisation hierarchy.

Next, we outline the core principles underpinning the operationalisation of NSSL, and identify a deficit of empirical research regarding the nature, extent and effects of variations in organisational design. Thereafter, we detail the study methods, findings, and develop discussion of their implications.

7.2.1 Normalised small-scale nursing home care

Large and small-scale nursing homes are underpinned by structural, organisational and philosophical differences in care provision. Importantly, 'large' or 'small' does not refer to the total number of residents within a nursing home, but rather to the number of residents at the lowest organisational level, known as the 'living unit' (Vermeerbergen, Van Hootegem, and Benders, 2017). Structurally, traditional large-scale nursing homes are characterised by long hospital-like hallways (Van Steenwinkel, Verstraeten, and Heylighen, 2016) and living units with in excess of 20 residents (Verbeek et al., 2009). Organisationally, living units typically receive services from centralised facilities (e.g. kitchens, laundries), reducing scope for resident involvement in day-to-day activities (Declercq, 2009).

Attempts to generate a more homelike care environment, via small-scale nursing home provision in which 'normal' aspects of life are preserved, are badged differently across nations. However, the various models share the core principles of resident-directed care; a homelike environment; close relationships between staff, residents, family and community; staff empowerment and; collabourative and decentralised management (Bowers, Nolet, and Jacobson, 2016). In addition, a focus on measurement based continuous improvement is also evident in the US (*ibid*). These principles enable the pursuit of 'real home', 'meaningful life' and 'empowered staff' (Zimmerman et al., 2016). To enable this, organisational design – which relates to how work tasks (in this instance social and personal tasks) are planned and allocated within organisations (Baekelandt, 2001; Declercq, 2009) – differs in small as compared to large-scale nursing homes.

7.2.2 Organisational design in normalised small-scale living

Academic research (e.g. De Rooij et al., 2012; Kane et al., 2007; Willemse et al., 2014) and policy-oriented reports (e.g. Baekelandt, 2001) suggest that NSSL nursing homes (or synonyms thereof) share similar organisational designs. However, the assumption of invariability has not been systematically interrogated, and may be problematic (Vermeerbergen, Van Hootegem, and Benders, 2017). Extant publications are suggestive of differences across countries, within countries, and between intended and implemented practice. For example, in Belgium and the Netherlands, the principles of NSSL are

operationalised using three core organisational characteristics (Baekelandt et al., 2001). First, is the establishment of *small resident groups*, typically between six and fifteen residents (Verbeek et al., 2009). This aims to create a homelike environment, by enabling close personal relationships between residents and staff. In turn, these relationships enhance residents' involvement in day-to-day decisions regarding how they live their lives and the care they receive (Declercq, 2009). Second, the presence of *homelike facilities (e.g. kitchen, laundry facilities, living room and bathrooms) in the living unit* aims to avoid creating an institutional environment and to support residents' day-to-day autonomy. Third, *integrated jobs* for workers, involving responsibility for health and social care tasks, as well as decision-making autonomy regarding their execution (Te Boekhorst et al., 2008), support the enactment of resident-directed and responsive care and the development of close relationships. In contrast, in the US, Green Houses are characterised by having between 8 and 12 residents per unit; self-managed teams of certified nursing assistants who take on 'universal worker' roles and manage the day-to-day operation of the house; nursing support and supervision; and a 'Guide' who adopts a coaching role for non-clinical aspects. Further, US units typically operate alongside a traditional legacy home (Bowers, Nolet and Jacobson, 2016), whereas a mixture of standalone and co-located homes are evident in the Belgian context considered here.

Beyond variation in recommended organisational design across nations, there are within country differences. For example, in the US, Green House homes must meet trademark standards, whilst this is not the case in Belgium. In addition, there is emergent evidence regarding difference between intended and implemented practices (see Fishman, Lowe, and Ryan., 2016). One recent paper suggests that whilst the structural elements of the Green House model (e.g. small size, bathrooms, shared kitchens) are often achieved (Zimmerman et al., 2016), the adoption of other practices varies substantively - including over time, with evidence of regression to more traditional modes of organising (c.f. Bowers, Nolet, and Jacobson, 2016). Variation is particularly prevalent in the organisation of work, with recent articles suggesting differences in both personal and social care provision. For example, the provision of nursing support in Green Houses can range from traditional nurse directed care, to nursing assistants requesting nurse input as required (Bowers and Nolet, 2014). On the social care side, Cohen et al. (2016) found that Green Houses vary in their adoption of the 'universal worker' model, with some finding it beneficial to use specialised workers (e.g. chefs) to do certain tasks. Such amendments to innovations are not unusual (McDermott et al., 2015), but do lead to questions regarding '*which elements can be tailored and which require fidelity and consistency if intended aims are to be achieved*' (Zimmerman et al., 2016, 484).

The above examples evidence both overlap and variation in the definition and operationalisation of organisational characteristics supporting NSSL. This raises potential for 'clusters' of organisational designs pursuing similar principles. However, to date no empirical study has undertaken comparative analysis of organisational design in small-scale nursing homes. This is a deficit because scholars across

disciplines have long recognised that organisational design impacts organisational and individual outcomes (e.g. Havig et al., 2013; Schouteten, and Benders, 2004; West et al., 2002). In this context, the adoption of alternative organisational designs by small-scale homes may differentially affect the quality of working and home life for nursing home staff and residents (Vermeerbergen, Van Hootegem, and Benders, 2017). Some organisational designs may benefit residents and staff, whilst others may negatively affect one or both. Variation therefore complicates the evaluation of the model, and may explain mixed findings regarding its effects (Cohen et al., 2016). As a consequence, the aim of this study is to identify the organisational designs present in small-scale and homelike nursing homes, and associated implications for staff and residents.

7.3 Methods

7.3.1 The case method

A comparative case study design (Yin, 2011) was utilised. Twenty Belgian nursing homes that had adopted the concept of NSSL were purposively selected. Fourteen homes were identified via their membership of a network of NSSL nursing homes in Flanders. The network promoted the NSSL model and provided opportunities for peer support and learning. Six additional homes were identified via snowball sampling. The participating organisations have all self-identified having adopted the NSSL model.

7.3.2 Data collection

Secondary, observational and interview data were collected from the twenty case organisations between January 2016 and September 2017. Secondary data was collated from 59 websites and 34 administrative reports (i.e. nursing home balance sheets, available from the National Bank of Belgium website; nursing home care quality reports, published by the Flemish Agency for Health and Innovation). Observational data were gathered from visits to each organisation in 2016. Semi-structured interviews were conducted with the nursing home managers by the first author. As the most senior individual in the organisation, the managers were knowledgeable both about the nature of, and rationale for, the organisational design adopted, including the intra- and supra-unit division of work. The interviews ranged between one and four hours in length, with forty-one hours of data recorded. Interviews were transcribed verbatim.

The interview schedule addressed the key building blocks of organisational design. Specifically, the intra-unit design choices considered were: (1) the task pool, referring to the content and range of tasks undertaken within a work unit (c.f. Benders, 1995); (2) the division of work between care workers (e.g. universal tasks vs. specialisation, c.f. De Sitter, Den Hertog, and Dankbaar, 1997; Mintzberg, 1980;

Pugh et al., 1968) and; (3) teamwork (e.g. degree of self-management, and interdependence of teams, c.f. Thompson, 1967; Trist and Bamforth, 1951). The key supra-unit design choices considered were: (1) the localisation, centralisation and/or externalisation of work tasks (c.f. Mindlin, and Aldrich, 1975; Ramioul, 2012); (2) the presence of service teams specialised in specific care tasks (c.f. De Sitter, Den Hertog, and Dankbaar, 1997; Mintzberg, 1980) and; (3) levels in the organisational hierarchy (c.f. Pugh et al., 1968). Respondents were asked to describe the organisational design; to explain why specific design choices were made and; to discuss the consequences for residents and staff.

7.4 Data analysis

Within case data analysis aimed to map the organisational design of each nursing home and the associated consequences for residents and staff. Subsequent cross-case analysis aimed to identify shared and different experiences across the nursing homes.

Initially, publicly available secondary data was interrogated. Appendix 6 presents the outcome of this analysis. Thereafter, the interview data were aggregated in accordance with the key analytic themes identified earlier (e.g. intra- and supra-unit components of organisational design). Coding was used to highlight both the organisational design characteristics of each organisation and explanations for their adoption. Second, codes were thematically aggregated, and summarised in table format (e.g. conceptually clustered matrices, as per Miles and Huberman, 1994). During these two stages, the authors repeatedly revisited the themes derived from the literature and the codes derived from the data. This iterative analytical approach enhanced reliability. The Gioia-methodology was used to code and analyse the qualitative data (for more information on this method see sections: 6.3.3 and 8.3.2.2). Third, case specific tables were merged, to identify aggregated numbers of NSSL nursing homes adopting specific organisational design characteristics (see Tables 15 and 16). Further, during this stage, analysis moved beyond consideration of individual organisational design characteristics, with NSSL nursing homes clustered according to groups of shared characteristics.

The number of clusters was identified by the Ward hierarchical procedure, which uses Euclidean distance measures. Scores were given to the following design characteristics: ‘task pool’, ‘division of work’, ‘teamwork’, ‘service units’ and ‘externalisation’. Five variables were included in the cluster analysis, which are explained in detail in the finding section. The variable ‘task pool’ shows the range of tasks undertaken within a unit, that ranged from one to six. The variable ‘division of work’ shows the specialisation of care workers, that ranged from one (limited specialisation) to three (substantial specialisation). The variable ‘autonomous teamwork’ shows the degree of self-management, ranging from one to seven (see: Nijholt & Benders, 2010). The variable ‘allocation of teams’ shows how teams are attached to living units, that ranged from one (attached to one unit), two (attached to one unit but able to work in second unit) and three (attached to two units). It was opted to make one variable for

externalisation and service units since the nursing homes had similar scores for both. The variable 'service units/externalisation' shows the degree in which externalisation and service units are present in the nursing homes, ranging from one (few externalisation and service units) to three (substantial externalisation and service units).

Two statistics were considerd for the selection of the final number: the R-Square (RS) and the Root Mean Square Standard Deviation (RMSSTD). While the first one shows the extent to which the clusters differ (the larger the number the more the clusters differ), the last one shows the homogeneity within the clusters (the smaller the number the more homogeneity). The proportion of variance accounted for (or the RS) was about 92 per cent for five clusters, 94 per cent for six clusters, and 86 per cent for four clusters. The RMSSTD score is for five clusters .39, .43 for six clusters, and .46 for four clusters. The five cluster model was selected, because there was not much difference for the RS score between five and six and there was a large difference for the RMSSTD scores.

In the fourth stage, attention turned to the thematic aggregation of identified consequences of organisational design choices for both residents and staff. Throughout each stage, secondary and observational data were utilised to verify and triangulate interview data (Fetters, Curry, and Creswell, 2013). Last, in 2017 the study findings were presented to, and validated by, the individual managers of each nursing home.

7.5 Findings

Findings relate to four themes: the intra-unit organisation of work; the supra-unit organisation of work; managers' perceptions of the rationale for, and consequences of, different organisational design choices and; the five clusters of organisational designs identified across the cases.

7.5.1 Design aspects in the ward: intra-unit level

There was substantive variation across the twenty cases in the three intra-unit dimensions considered. These were the task pool (the content and range of tasks undertaken in a living unit); the division of work between care workers (universal tasks vs. specialisation) and; how teams were organised and managed. Table 15 summarises the intra-unit work division with NSSL nursing homes.

Task pool. In most organisations care workers took responsibility for personal care tasks, including washing residents (20 cases); providing assistance with eating (18 cases) and; administering medicine (18 cases). However, there was more variability with regards to social care, and 'homelike' care tasks in particular. In most cases (16), care workers organised social activities within the living units. Care workers cooked in four living units, heated and served meals that were pre-prepared in a central kitchen

in fifteen others, and served centrally prepared and cooked meals in one. Last, care workers washed clothes in three living units. Six additional living units had a washing machine available for use.

The tasks undertaken within living units were influenced by the needs of the residential group. Five homes had introduced NSSL units with the express purpose of serving the needs of sub-groups of residents (e.g. dementia (1 case); young residents with dementia (1 case); low care needs (3 cases)). Ten nursing homes cared for residents with dementia in dedicated living units. Supporting residents with high care needs reduced staff time for social and homelike tasks.

The range of tasks undertaken was also influenced by the size of the residential groups. Eight nursing homes had between 6 and 10 residents per living unit, seven cases had between 11 and 15, and five cases had more than 15 residents. More residents typically led to greater variety in personal and social care needs.

Division of work between care workers. Nursing homes differed in how personal and social care tasks were divided between workers. At one end of the spectrum, in three cases, jobs encompassed all personal and social care tasks for a limited number of residents (e.g. 'universal worker' roles). At the other, in six cases, a high level of specialisation was evident. Eleven cases had some specialisation. The extent to which universal or specialised roles were evident was dependent on staffing levels and team composition. Specifically, staff working alone were required to perform most personal and social care tasks themselves, acting as universal workers. In contrast, having two or more employees working concurrently in a unit created opportunities for specialisation. For example, one staff member could undertake all nursing tasks, whilst another helped residents to wash and dress. Further, having functional specialists (e.g. nurses, physiotherapists) undertaking specific roles reduced specialisation within the core team, as day-to-day care workers completed outstanding personal and social care tasks.

Teamwork. The homes differed in how they allocated teams to living units. Six homes had dedicated teams that independently served a single living unit. Ten homes had inter-connected care teams, that could provide cover and assistance to each other when required. Four homes assigned teams to multiple living units (i.e. overarching care teams), with staff periodically (e.g. weekly) allocated to work in a living unit.

Homes differed in the extent to which teams were self-managing. Teams had autonomy in managing different facets of their activity including: the allocation (17 cases) and scheduling (16 cases) of work; oversight of work quality (13 cases); time keeping (16 cases); attendance and absence (9 cases); coordination of work with other work units (16 cases); and improving work processes (14 cases). Seven homes enabled teams to self-manage all these facets. Seven further homes enabled teams to manage many. In one instance, team members could only decide the allocation of work. Thus, decision latitude varied.

Table 15. Intra-organisational design in normalised small-scale living nursing homes

Intra-organisation design aspects				**Number of homes**
Task pool	Tasks in living unit	Eating: breakfast, lunch and dinner		18
		Medication		18
		Washing		20
		Organising social activities		16
		Laundry	Everything is washed in the living unit	3
			Facilities for washing available in the living unit	6
			Everything washed in a centraliseed laundry room	11
		Cooking	Meals cooked in the living unit	4
			Meals heated in the living unit	15
			Meals cooked in central facility	1
	Dementia as criteria for dividing residents between small-scale living units			10
	Number of residents per unit		6-10 residents per unit	8
			11-15 residents per unit	7
			+15 residents per unit	5
Division of work	Task specialization	Low		3
		Some		11
		High		6
Teamwork	Allocation of teams to living units	Dedicated care teams		6
		Inter-connected care teams		10
		Overarching care teams		4
	Self-managing teams	Allocation of work		17
		Scheduling of work		16
		Quality of work		13
		Time keeping		16
		Attendance and absence control		9
		Coordination of work with other internal groups		16
		Improving work processes		14

7.5.2 Design aspects between wards: supra-unit level

At supra-unit level, above the level of the living units, three aspects of organisational design were mapped: whether and which tasks were centralised or externalised; whether service teams supplemented the care provided by living unit staff and; levels in the organisation hierarchy. The first two design aspects influenced who tasks were completed by – namely core staff affiliated to the living unit, staff

working for the nursing home, or employed by an external organisation. Table 16 summarises the supra-unit work division between NSSL nursing homes.

Service units. Service units comprise staff who provide specific services to residents in multiple living units. These were present in sixteen nursing homes, with most undertaking nursing (12 cases) or cleaning (15 cases). Although the number of living units covered by each professional varied according to the number of residents and their care needs, every home tried to affiliate service workers to specific living units.

Centralisation and externalisation of tasks. Eighteen nursing homes were part of a larger group of care homes, with tasks centralised – albeit to different degrees – within the group (e.g. catering; laundry). Nine homes externalised tasks, with five cases outsourcing cooking, and seven outsourcing laundry.

Organisation hierarchy. There was uniformity in the structure of the organisation hierarchy. All twenty nursing homes had three hierarchical levels, comprised of front-line care workers, team leaders and senior managers.

Next, we consider the extent to which these manifest in configurations.

Table 16. Supra-organisational design in normalised small-scale living nursing homes

Supra-organisational design aspects		**Number of homes**
Presence of service units	Care service units	12
	Non-care service units	15
Externalization of tasks		18
Centralisation of tasks		9
Organisation hierarchy: three hierarchical layers		20

7.5.3 Clusters of organisational designs

Five clusters of three intra- and two supra-unit organisational design aspects were evident across the NSSL homes (organisation hierarchy was excluded from consideration due to consistency across the cases). These are summarised here and in Table 17.

The first ‘standalone’ cluster was evident in three NSSL homes. It placed the living unit at the heart of care delivery. Universal workers undertook most personal and social care tasks for residents. However, having a standalone team, receiving little support from another team, service unit or centralised provision, meant that staff required a broad range of competencies and lacked supervision and support. However, residents benefitted from a homelike environment and high-quality relationships.

The second ‘serviced-standalone’ cluster was evident in three NSSL homes. Staff worked in independent work groups (as per the standalone cluster). However, they received support from service

units and centralised service provision (e.g. centralised catering and entertainment teams). This enabled some division of tasks between workers, and led to semi-specialisation.

The third 'stitched-standalone' cluster, evident in five NSSL homes, was characterised by teams linked across living units, to ensure availability of support for care workers who undertook most personal and social care. One consequence of this was enhanced specialisation of staff (e.g. a nurse moving between living units), reducing the need for supra-unit supports (e.g. service units).

The fourth 'shared staff-basic facilities' cluster, evident in four NSSL homes, organised staff in large overarching workgroups affiliated to multiple units. Staff were mobile between units, rostered on a regular (i.e. daily/weekly) basis and held responsible for a moderate range of tasks, reduced by divesting some required roles to service units and centralised/externalised providers.

The fifth 'small-scale conventional' cluster, evident in five homes, was closest to a conventional operation-oriented nursing home setting. Despite having the small living units associated with NSSL, these clusters displayed the specialised tasks, substantial centralisation, and outsourcing of services associated with more traditional care models. Care workers had reduced autonomy and less intense relationships with residents, relative to other clusters.

Next, we consider managerial perceptions of the implications of different organisational design choices, for residents and care workers.

Table 17: Five organisational designs in normalised small-scale living nursing homes

Title of design clusters	**Intra-unit characteristics**			**Supra-unit characteristics**		**Number of nursing homes**
	Task pool	**Division of work**	**Teamwork**	**Service units**	**Externalisation / centralisation**	
1. Standalone	Broad	Few	Dedicated autonomous team	Few	Few	3
2. Serviced standalone	Moderate	Some	Dedicated autonomous team	Some	Some	3
3. Stitched standalone	Broad	Some	Inter-connected autonomous team	Few	Few	5
4. Shared staff-basic facilities	Moderate	Some	Overarching autonomous team	Some	Some	4
5. Small-scale conventional	Small	Substantial	Inter-connected constrained team	Substantial	Substantial	5

7.5.4 Organisational design choices: rationale and implications for residents and care workers

Managers' perceptions of the benefits and pitfalls of different organisational design choices are summarised here (for all intra- and supra-unit dimensions except the organisation hierarchy, which had a standard manifestation). What is important here is that this section outlines the perceived impact of designs on residents and care workers rather than it describes why nursing homes chose for specific designs. Implications differed for residents and care workers, with some evidence of systematic trade-offs. However, a key caveat is that these are managerial, rather than resident and worker, perceptions.

In considering the *task pool*, managers reported that a broad task pool affords workers greater control over the care process, thereby reducing job-related strain and increasing engagement. Residents were also perceived to benefit, particularly from workers' capacity to respond swiftly to their needs. However, workers could experience time pressure when given responsibility for too many tasks. In addition, workers sometimes felt incompetent in some areas (e.g. cooking) when responsible for a broad range of tasks. Thus, staff stress and broad skill requirements were potential points of concern.

The most substantive influences on workers' task pool related to the composition of living units, in terms of their homogeneity vs. heterogeneity and large vs. small-scale. Managers with heterogeneous living groups reasoned that these provided benefits to residents and care workers alike. Combining residents with high and low care needs balanced the job demands faced by care workers. In some instances, residents with low care needs assisted with homelike tasks, such as cleaning or doing the washing-up. In turn, residents benefited from remaining within the same living group, even when their health deteriorated. This was perceived to have substantial positive implications for quality of life and death, avoiding a scenario where the staff can't finish caring for the person they have looked after for several years.

Other managers argued that homogenous living groups afforded care workers the opportunity to develop particular interests – such as addressing the needs of defined resident groups (e.g. dementia) – and supporting the use of specialised skills (e.g. nursing skills). Homogenous living groups were also perceived to be beneficial for residents', reducing conflict between those with different care needs (e.g. dementia vs. physical needs). As one manager noted:

> Suppose we live together in the same unit. I have dementia and you have physical problems. When I drink from your glass [because I've forgotten which glass is mine], you probably won't like that, and we'll argue. And I'll probably be ejected from the unit. But if we live in different living units [consisting of residents with similar care needs] there won't be a problem. (manager 1, cluster 1)

In terms of scale, some managers suggested that small living units (<8 residents) are beneficial because a single care worker can fulfill all of the residents' personal and social care needs. This was perceived to enable worker control over the care process, greater focus on staff relationships with residents (rather

than peers), and less opportunity for dysfunctional staff relationships, captured in the assertion that 'The smaller the care team, the less subgroups and cliques'. Residents were perceived to benefit from closer interpersonal relationships – and a stronger homelike atmosphere. On the flipside, this model reduced opportunities for staff to learn and receive support from peers - problematic for inexperienced staff and at times of pressure. Small care teams could therefore lead to stress and burnout, and also created challenges in managing cover and ensuring continuity of care in the event of staff absence. It suggests trade-offs between the experiences of residents and the demands made of care workers.

In terms of the *division of work*, having one or a small number of employees working in a unit led to more complex jobs, with workers responsible for a wider range of personal and social care tasks. The universal worker model was seen to be beneficial for residents, as workers understood and could deliver all/a majority of the care process rather than being focused on a single task. However, the benefits of specialisation were also noted. Specialisation was seen to support recruitment, as some workers wished to work at the top of their skill set. In addition, giving care workers specialised responsibilities (e.g. falls prevention) led to greater expertise across the team as a whole, and a higher quality of care for residents. A further identified benefit was that specialised roles were easier to fill. Finding well trained and flexible workers, willing and able to work alone, was a challenge.

Third, in discussing *teams*, managers argued that affording them autonomy enabled responsiveness to residents' needs, which increased the quality of care provided. Although autonomy could reduce job strain, the inverse was also true, with some workers finding it stressful. Reflecting this, managers highlighted that autonomy could be a barrier to recruitment. This was problematic given nursing and care worker labour shortages, meaning that staff could pick and choose the roles they liked:

> My former boss used to tell a story about choosy chickens, picking the grains they like best. (…) Some chickens like some grains, and others like different ones. (…) In the same sense, not all care workers want a lot of autonomy. (..) That is why we don't oblige our staff to work in autonomous teams. (manager 2, cluster 4 with both autonomous and non-autonomous teams)

In discussing team structure, managers noted that inter-connected and/or overarching teams reduced isolation and stress, and increased support for care workers. However, in practice, linked living units typically operated as one large residential group. This increased staff specialisation and reduced closeness in the relationships between residents and staff. Recognising these dynamics, one manager argued for universal workers and standalone teams (serving a single living unit) as follows:

> In other living [linked or overarching] units, care workers spend more time sitting together and chatting to each other. That means they spend less time with residents. (…) so they know less about the residents' backgrounds and needs. (manager 3, cluster 3)

Next, we turn to the supra-unit level. In discussing service units, managers recognised that these were an efficient way of addressing specific tasks (e.g. nursing, cleaning). However, service unit staff only

engaged intermittently with residents and were less aware of their life histories and individual needs. Furthermore, residents and their core care workers lost control over the components of the care process delivered by service units, with coordination often proving problematic. However, managers did report that use of service units freed up core care workers' time, which increased their capacity for responsive person-centred care. Managers also noted that specialisation via service units could increase quality of care, exemplified in the following quote:

> We [managers] deliberately chose to have nurses line managed by a head nurse. (…) Nurses need to conduct specialised tasks, and therefore need to learn from each other. (…) When put together nurses monitor their specific domain. (manager 4, cluster 5)

Fifth, managers argued that centralisation and externalisation reduced care worker and resident control over the timing and execution of the affected tasks. One manager recounted an incident whereby an external kitchen omitted delivery of a halal meal for a Muslim resident. The on-duty staff member was unable to provide a substitute, causing stress for the worker and the resident. However, as per the introduction of service units, centralisation and externalisation reduced the day-to-day workload of core care workers:

> We have a central kitchen. Meals are transported from there to the living units. Everything is heated in the living units. (...) We did this because (....) care workers have a limited number of hands with which to feed [cook, serve and support] all the residents. Their work load was just too high. (manager 5, cluster 5)

Benefits of some designs are evident for residents and workers, but challenges affect workers disproportionately. It is important to outline that even though design choices influence residents and care workers outcomes, design implications should not be understood as having a deterministic influence. In particular findings for clusters 1, 3 and 5 suggest trade-offs between the experiences of residents and the demands made of care workers. For example, clusters 1 and 3 provide staff and residents with the full range of benefits that were previously discussed and summarised below, but creates demands both of workers and their organisations. This was due to broad task pools, few to some task division, autonomous teamworking, few service units, and few externalisation/centralisation. Specifically, in homes operating under the cluster 1 and 3 models, the design enhances a homelike environment, high quality relationships with staff and prompt attention. Residents also benefit from care workers having control over the care process, which enables them to respond to unforeseen circumstances, in ways that are resident oriented. At the same time, care workers benefit from having decision-making authority, and engaging roles. On the flip side, workers encounter a broad range of challenges, associated with this model of working. They require a broad skill set (difficult for organisations to acquire in the labour market), experience high job demands – associated with workload,

time pressure and the emotional demands of the role – and work in isolation (when small teams are dedicated to small living units), making it difficult to receive responsive support. In contrast, the organisation of the care process in cluster 5 results in neither substantial benefits for residents, nor substantial demands of workers and their organisations.

7.6 Contributions and conclusions

Historically, studies have assumed that NSSL/Green House nursing homes adopt similar organisational designs. However, calls to 'examine finer distinctions' in the model of care (Zimmerman et al., 2016), have emerged, as researchers recognise that variation may explain mixed findings regarding the effects of NSSL for residents and workers (Cohen et al., 2016). This study responds to these calls, and contributes to the literature in two ways.

First, the study provides empirical evidence of extensive variation in the organisational designs evident across NSSL nursing homes. In this sense, insights from organisation studies and sociology on how tasks are divided within organisations are used to give a 'more holistic and robust understanding of contemporary issues related to healthcare organisation and delivery', in line with calls from within this journal (Currie et al., 2012, 276).

Second, the study begins to identify the implications of different design principles for residents and workers. Crucially, the potential pitfalls of NSSL for workers identified in previous review studies (e.g. isolation, time pressure, lack of specialised skills, Ausserhofer et al., 2016; Vermeerbergen, Van Hootegem, and Benders, 2017) are found to be more evident in some NSSL organisational designs (i.e. clusters 1 and 3) than others. Likewise, the advantages of NSSL detailed in these review studies (i.e. increased quality of life for residents, and higher autonomy and more engaging jobs for staff; Ausserhofer et al., 2016; Vermeerbergen, Van Hootegem, and Benders, 2017) were less present in some designs (i.e. cluster 5). The study is therefore a first step in responding calls to link variation in organisational design decisions with resident and worker outcomes.

Importantly, the study findings raise questions regarding what is necessary or sufficient to realise NSSL. All participating managers perceived their organisations as delivering NSSL. However, some organisational designs (i.e. clusters 1 and 3) are more aligned with the NSSL concept than others (i.e. cluster 5). Cluster 5 - the small-scale but conventional nursing home design - is less likely to provide homelike care to residents, and it may be argued that homes in this cluster are failing to realise the NSSL care concept.

The study represents an important first step in understanding the consequences of different organisational designs in NSSL. As a result, we outline future research directions. First, research should take account of resident and care worker perceptions, and interrogate the trade-offs between job demands, controls and outcomes for residents within different designs. Whilst the importance of

resident-centred care has been clearly articulated (Cohen et al., 2016), continuity in staffing enables development of personal relationships and supports high quality care (Knapp and Missiakoulis, 1983). Given care worker transition between sub-sectors of employment (c.f. Alameddine et al., 2006), concurrent consideration of resident and workers needs is important. Conducting such studies will potentially confirm, or challenge whether there is truly no 'one best way' to design nursing homes, as is suggested by Rohrer et al. (1993).

Second, research should consider the reasons underpinning the adoption of the various organisational designs evident in NSSL. This study outlined the heterogenous organisation design forms within NSSL, without explaining why organisations had different designs. One potential barrier often mentioned in the literature for NSSL adoption is the financial context (see Bowers, Nolet and Jacobson, 2016; Zimmerman et al., 2016). We especially encourage future research on the impact of different organisational design choices on the initial and continuing costs of NSSL, since it could that some designs are more costly than others. Chapter 6 of this dissertation sketched the reasons for practice variation of the NSSL care concept. Future research could conduct a similar study on the reasons why change agents adopt specific organisation designs in NSSL.

Third, there is scope for further international and comparative research on organisational design in NSSL. Differences are likely across contexts. For example, in some countries, like Belgium, nursing homes are typically small organisations with a relatively flat hierarchy. In others, like The Netherlands, nursing homes are typically larger and more hierarchical organisations. Further, in the US, the Green Houses concept is trademarked, potentially reducing variation in practice. Undertaking such studies will assist in identifying 'best practice' organisational design, in support of staff and residents' quality of work and life.

Fourth, this study outlined the different organisation designs which are present in NSSL nursing homes. The way in which managers perceived these designs to impact quality of work and life of care workers and residents. Future research could conduct a large-scale survey study on both care workers' and residents' quality of work and life. In fact, we see this study as a first step to link organisational design outcomes to resident and worker outcomes in the nursing home sector.

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CHAPTER 8. UNCOVERING THE BUILDING BLOCKS: THE IMPACT OF THE BUILT ENVIRONMENT ON THE QUALITY OF WORKING LIFE OF CARE WORKERS IN A NORMALISED AND SMALL-SCALE NURSING HOME

This chapter is based on: Vermeerbergen, L., Van Hootegem, G., Benders, J. (2018). Uncovering the building blocks: The impact of the built environment on QWL of care workers in a normalised and small-scale nursing homes. International Francqui Chair Professor Steven Vallas, Different Forms of Work in a Post-Fordist Labor Regime, Gent, 18 January.

Abstract

For many nursing homes in Western societies attracting and retaining care workers remains a challenge. Normalised and small-scale living (NSSL) aims to provide residents with a homelike environment, mimicking life outside of the care facility. Past research suggests that NSSL has the additional benefit of improving the quality of working life of care workers as well, thereby increasing the attractiveness of their jobs. However, it remains unclear whether this holds true for any architectural setting. This article examines QWL experiences in an organisation realising NSSL in two different settings: new purpose-built small houses, and an existing large building with segmented corridors. Between April 2015 and April 2017, data from five sources were collected: surveys, interviews with employees and managers, focus groups, on-site observations, and pedometer data. We find that NSSL is less favourable for QWL in small housing projects than in large buildings, since higher job demands came with lower peer support. Job control and supervisory support did not differ. Past studies showed that this combination is a source of strain in nursing home jobs. The article offers explanations for these findings, and outlines implications for practitioners.

Keywords: quality of working life, nursing homes, built environment, green houses, normalised small-scale living

8.1 Introduction

Considerable empirical research has compared the QWL of care jobs in normalised (i.e. homelike) small-scale nursing homes with those in non-normalised and large-scale nursing homes (De Rooij et al., 2012; Brown et al., 2016; Kuremyr et al., 1994; Loe & Moore, 2012; Te Boekhorst et al., 2008; Van Zadelhoff et al., 2011; Verbeek et al., 2010; Van Beek et al. 2011; Verbeek et al., 2012). In normalised small-scale homes residents live in a family- and homelike environment in which they have the opportunity to live a life closely resembling the life they led before. Various countries have been implementing normalised small-scale living under different labels. While in Belgium the label 'normalised small-scale homes' is used (Vermeerbergen et al., 2016), it is 'group homes' in Japan, (Nakanishi et al., 2012), and 'Wohngruppen' in Germany (Dettbarn-Reggentin, 2005), or 'Green Houses' in the United States (Miller et al., 2016).

Vermeerbergen et al. (2017) emphasize in a systematic review study that normalised small-scale living is a promising starting point for creating less stressful and healthier care jobs in the nursing home sector. These jobs became more appealing because of higher job control (Loe & Moore, 2012; Te Boekhorst et al., 2008; Verbeek et al., 2012), higher job demands (except time pressure which was lower) (Loe & Moore, 2012; Van Zadelhoff et al., 2011; Verbeek et al., 2012; Te Boekhorst et al., 2008). Points for improvement are the experience of job isolation, and high job demands during specific work periods (De Rooij et al., 2012; Te Boekhorst et al., 2008; Van Beek et al., 2011; Verbeek et al., 2012; Vermeerbergen et al., 2016). Overall, the review suggests that the QWL of care workers is higher in normalised small-scale living than it is in non-normalised large-scale living.

The notion of 'normalisation' originated in psychiatry (Nirje, 1992). Rather than providing care in large-scale hospital-like buildings, which were often located in (relatively) remote areas, patients were housed in regular houses, suited for families, in residential neighbourhoods. Even though this original form still exists, both for psychiatric patients and senior citizens, is normalised living for elderly care often realised within nursing homes themselves (Wolfensburger, 1978). In those cases, residents live together in moderately sized units (generally between 6 and 15 persons) (Verbeek et al., 2009; Zeisel et al., 1994), which are based in a nursing home consisting of several of aforementioned units and/or other forms of accommodation. Consequently, normalised living groups are realised within a large variety of built environments. Relatively self-contained spaces are seen as a *condition-qua-non* (Loe & Moore, 2012), yet the architectural forms of these vary from stand-alone houses to units within an adapted nursing home environment (de Boer et al., 2015). Given that normalised living is often implemented in order to improve the quality of living and care (Ausserhofer et al., 2016), it can be expected to disseminate further in the coming years. This means that either existing buildings will be adapted, or that new dwellings will be built. Until now, most normalised small-scale nursing homes have constructed small stand-alone houses when moving towards the realisation of the care concept (Van Steenwinkel et al., 2012). One question that arises is whether the architectural form influences the QWL (Vermeerbergen

et al., 2017), and if it could influence the quality of care as well as the attractiveness of care jobs. The latter is a pressing issue in societies confronted with an ageing population (Cooke and Batram, 2015; Hussain et al., 2012; Kim and Gordon, 2014; van der Borg et al., 2017).

8.2 Study aim

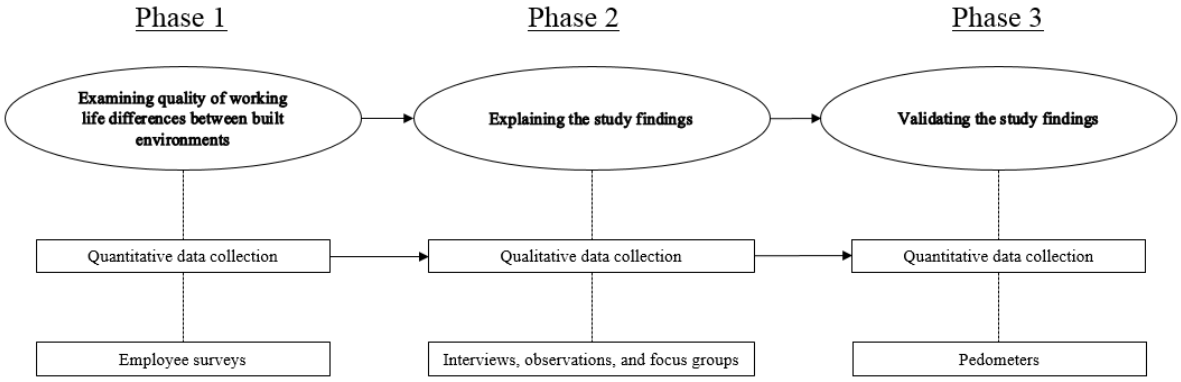
This study examines the impact of the built environment on the QWL of care workers in homelike and small-scale nursing homes.

8.3 Methods

8.3.1 Study design

The study is a comparative case study that uses a mixed methods approach to collect data. First, the mixed methods research approach was used because the application of different research methods to studying the same outcome increases the study's credibility and validity, while also providing a deeper and fuller understanding of the study findings (Fetters et al., 2013). The QWL was examined through in-depth interviews with care workers and managers, expert observations, focus groups, employee surveys, and pedometers. These data were collected in different phases (i.e. a multiphase mixed methods design). In phase 1, quantitative data was collected in order to have an initial understanding of the impact of the built environment on the QWL of care workers. Its findings were clarified by subsequently collected qualitative data in phase 2. This is an explanatory mixed methods design (Ivankova et al., 2006). In phase 3, a key example of the influence of the built environment on the QWL was used to validate the findings of phases 1 and 2: The walking distances in both built environments were compared. In the findings section we used the data sources to form a staged narrative (Fetters et al., 2013). This means that the findings for those 3 phases are described in different sections, starting with the first phase. Figure 17 shows the data collection process.

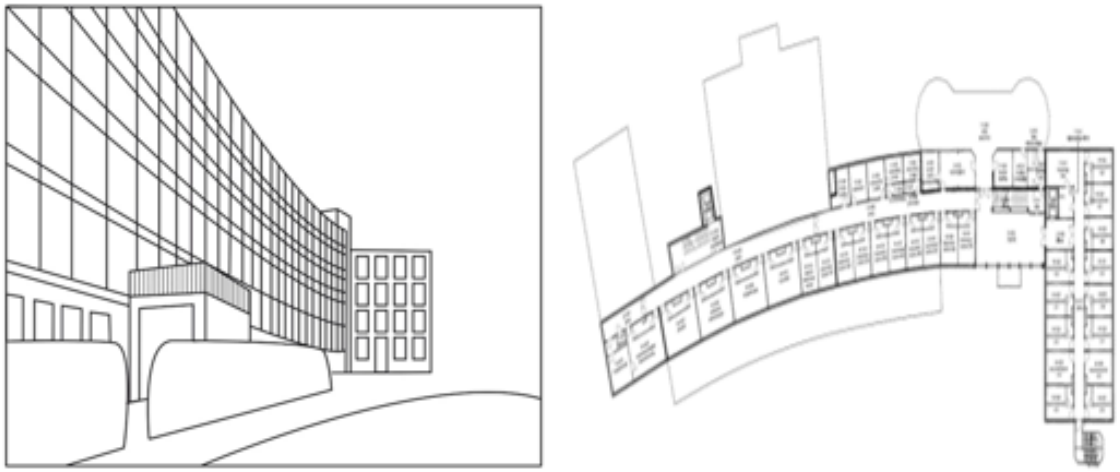
Figure 17: Data collection process in chapter 8



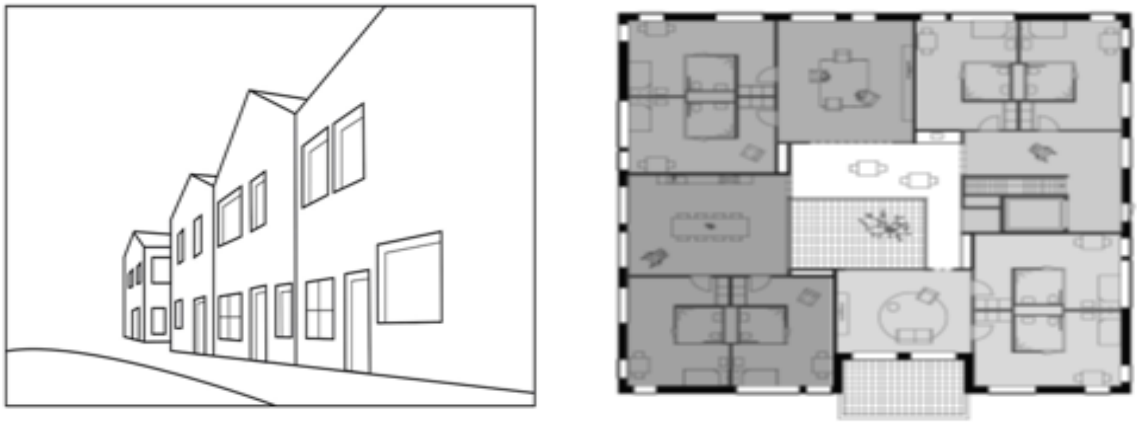
Second, a comparative case study design was adopted to systematically detail the study findings (Shadish et al., 2002; Yin, 1984). A care organisation, working with normalised small-scale living in two different built environments, is a rare natural setting, and therefore poses an opportunity to study. Both architectural forms are defined as cases (units of analysis): An adapted, large-scale building with a 'conventional' layout of rooms that are linearly organised along corridors, and a recently purpose-built small-scale setting that has rooms compactly clustered around a patio. Figure 18 shows the built environments of both cases. The care organisation is a public Belgian nursing home founded in 2012, which has been developing the concept of normalised small-scale living since the beginning. In 2015, 66 care workers cared for a total of 115 residents (a size representative for Belgian nursing homes) (Charlot et al., 2009).

Figure 18: Pictures and architectural plans of the new and the adapted building in the nursing home

2A The built environment of the adapted building



2B The built environment of the small houses



The examined organisation is uniquely suited for our research aim. Unlike all the other nursing homes we know of, it implemented NSSL in two distinctly different architectural settings. This is a necessary condition to identify what relative importance the built environment has on the QWL of care workers. Many internal (e.g. leadership style or care burden of residents) as well as external conditions (e.g. funding system or government regulations), which have demonstrated an impact on the QWL of care workers, remained constant to a great extent amongst the two cases. Two-tailed T-tests for continuous variables and chi-square tests for categorical variables showed that the characteristics of care workers and residents did not differ significantly amongst the cases (see Table 18).

Table 18: Basic characteristics of professional care workers and residents in the small houses and the adapted building.

Stakeholders' characteristics	Adapted building	Small houses	Significance	
			F-test/Chi-value	P-value
Basic care worker characteristics' (n=66)				
Age (mean, SD)	34.04 (10.11)	31.88 (7.93)	F=1.63	>.10
Sex (n, %)			$\chi 2$ =.10	>.10
Female	31 (88.57%)	16 (84.21%)		
Male	4 (11.43%)	3 (15.79%)		
Education level (n, %)			$\chi 2$ =1.69	>.10
No or little education	5 (14.29%)	2 (10.53%)		
Low to medium	23 (65.71%)	10 (52.63%)		
Higher education	7 (20%)	7 (36.84%)		
Profession			$\chi 2$ =2.79	>0.10
Other professional care workers	5 (14.29%)	2 (10.53%)		
Nursing aides	23 (65.71%)	11 (57.89%)		
Nurses	6 (17.14%)	6 (31.58%)		
Years working in home (mean, SD)	1.47 (0.57)	1.32 (0.67)	F=1.40	>.10
Contract hours (n, %)			$\chi 2$ =.01	>.10
Full-time	11 (31.43%)	7 (36.84%)		
Part-time	24 (68.57%)	12 (63.16%)		
Basic residents' characteristics (n=115)				
Care needs (n, %)			$\chi 2$ =1.46	>.10
Low care needs	5 (16.12%)	22 (26.19%)		
Medium care needs	15 (48.39%)	39 (46.43%)		
High care needs	11 (35.48%)	23 (27.38%)		

In sum, the study design components construct a powerful design to examine the impact of the built environment on the QWL of care workers. In-depth and comprehensive case knowledge (i.e. case study component) is combined with the exploration and explanation of the study findings through different data sources (i.e. mixed methods component).

8.3.2 Data collection and analysis

QWL was assessed through 'job demands', 'job control', and 'social support', which are all highly related to employees' health and work outcomes (Karasek & Theorell, 1990). Job demands refer to the psychological stressors related to fulfilling a workload (Karasek, 1979). Job control points to the degree of authority employees have with regards to their work-related tasks and on-site behaviour (Karasek, 1979). Social support covers the interaction with supervisors and co-workers in the workplace, the assistance received for work-related tasks, and the extent of workplace isolation (Johnson and Hall, 1988; Landsbergis, 1988). These three factors were purposively chosen, since studies on QWL found that in demanding jobs a high level of job control and a high level of social support reduce health risks (Karasek & Theorell, 1990). By contrast, it's shown that high job demands combined with low job control and low social support can increase health risks (Karasek & Theorell, 1990). Data on QWL (i.e.

job demands, job control and social support) were collected through interviews with care workers and managers, expert observations, focus groups, employee surveys, and pedometers.

8.3.2.1 The use of surveys: phase 1

Questionnaires were sent to all care workers within the organisation.

Web surveys were mailed to care workers of whom the nursing home manager provided the e-mail accounts. Written surveys were sent to care workers of whom the researchers did not receive email accounts. Two reminders were sent to care workers. To ensure anonymity, sealed and stamped envelopes and central collection boxes were used for the written surveys. Care workers also had the opportunity to send their surveys directly to the researchers.

Sixty-six surveys were sent to care workers in April 2015: twenty-three surveys to care workers in the small houses and forty-three surveys to care workers in the adapted building. Fifty-four care workers filled out the survey (19 in the small houses, 35 in the adapted building), i.e. a response rate of 82 percent.

The employee survey included three QWL dimensions. Job demands were measured through a set of eight sub dimensions: 'task repetitiveness', 'time pressure', 'work overload', 'complexity', 'qualitative work overload', 'emotional demands', 'variability', 'completeness', and 'predictability' (Sverke et al., 1999; Van Hootegem et al, 2014). Job control was assessed against two sub dimensions: 'job autonomy', 'organising tasks' (Van Hootegem et al., 2014). Social support was measured through three sub dimensions: 'support form supervisors' and 'support from peers' (Karasek & Theorell, 1990; Landsbergis, 1988), and 'supply of information' (Vermeerbergen et al., 2017).

The selected scales to measure the studied dimensions originate from three validated surveys. Most of the scales were assessed against scales of the NOVA-WEBA-FLASY survey (Van Hootegem et al., 2014). The Leiden Quality of Work Questionnaire was used to assess 'support from supervisors' (van der Doef & Maes, 1999). The scale of Sverke et al. (1999) was used to assess 'qualitative work overload'.

The quantitative analyses of the survey consisted of preliminary and principal analyses. First, preliminary analyses examined the validity and reliability of the QWL sub dimensions. Explorative factor analyses (EFA) were performed to ensure high construct validity. Factor loadings under .40 were considered to be too low for inclusion in the final scales. Thereafter, Cronbach α-values of the constructs (i.e. scales) were calculated to ensure high internal reliability. A threshold of >.60 for Cronbach α-values was considered an acceptable indicator for internal reliability (Hair et al., 2010). Items in the final constructs had all factor scores above .40 and the Cronbachs alpha's were all above .60: repetitiveness (α=.79), time pressure (α=.80), qualitative work overload (α=.89), complexity (.80), emotional demands

(α=.63), variability (α=.60), completeness (α=.71), predictability (α=.62), job autonomy (0.89), organising tasks (0.84), social support from peers (0.60), social support from supervisors (0.91), supply of information (0.83).

Second, principal analyses examined whether there were QWL differences amongst the cases. T-tests were also ideal analysis techniques for datasets with a small number of respondents. One-tailed t-tests were used to verify whether the built environment contributed to the variability in (mean) scale scores. We opted for one-tailed instead of two-tailed t-tests because short exploratory interviews with staff brought forth clear hypotheses on the impact of the built environment on each dimension: higher job demands, higher job control and lower social support in the small housing project. *p*-values under 0.1 were considered as significant because of the small sample of respondents, this is in line with recommendations on studying small samples. We first performed one-tailed t-tests for every QWL sub dimension, and thereafter for the survey items. The findings for the survey items have to be carefully interpreted because the *p*-values were not multiplicity-adjusted (see also: Westfall et al., 1993). In section 8.4.2.1 were the findings of one-tailed t-tests of the survey items related to the qualitative findings (see phase 2), this was done to (a) examine whether the findings of both phases support each other (b) and to be able to interpret the *p*-values with less caution.

The analyses were performed using SAS version 9.4.

8.3.2.2 The use of observations, interviews, and focus groups: phase 2

Qualitative data was collected in phase 2, with the aim to explain the findings of phase 1. Observations, interviews, and focus groups were conducted. We first explain how this data was collected; thereafter the analysis methods are shown.

Observations were conducted for 180 hours between April 2016 and April 2017. The researchers were experts in QWL and had expertise in collecting qualitative data, leading to a smooth detection of each QWL dimension. Observational data was systematically collected through two observation instruments. The WEBA-instrument of Dhondt and Houtman (1996) was used to quantitatively score the expected impacts of the built environment on QWL. The WEBA-instrument leaves little room to systematically write down thoughts and observations of the observers. Therefore, the authors created an instrument, which was broken up into different headings according to the different QWL sub dimensions that got filled out during the observations.

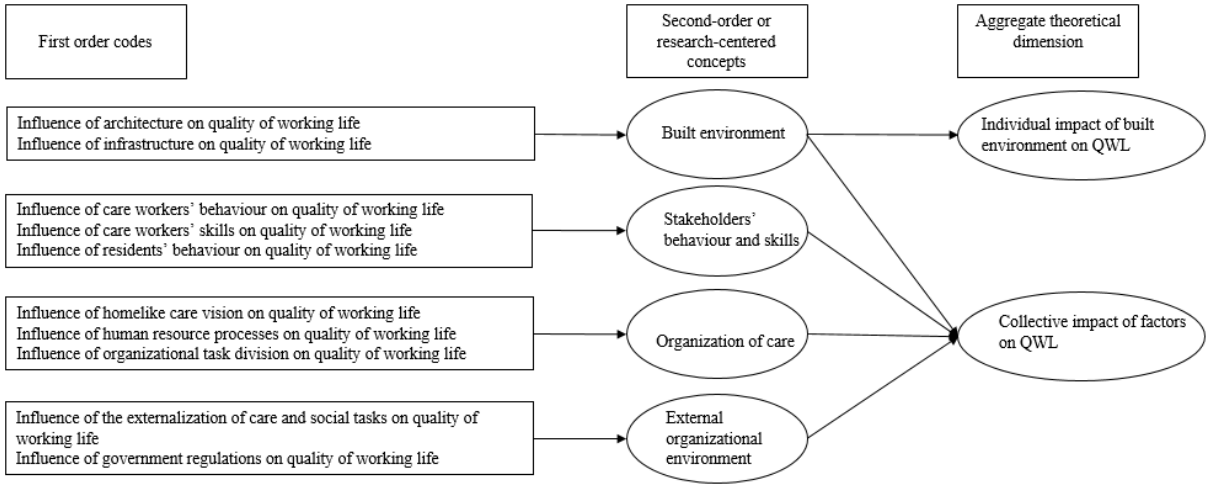
Face-to-face interviews were conducted with fourteen care workers, and four with nursing home managers between April 2016 and April 2017. During the last interviews we examined a point of theoretical saturation, meaning that no novel insights were gained (Strauss & Corbin, 1990). The

interviews ranged from one to two hours (total of 21 hours), and all interviews were fully transcribed. We opted for semi-structured interviews because these provided guidance without being coercive and are therefore ideal for detailed explanations of the quantitative study findings. This interview style made both retrospective and real-life data collection possible (Gioia et al., 2013). Interview themes revolved around explanations for differences between the two care settings in terms of job demands, job control, and social support.

Focus groups were organised in January and April 2017. Twenty-three employees participated in three homogenously sampled focus groups. Participants were divided into three groups: (1) nursing home managers and head nurses, (2) care workers active in the adapted building, and (3) care workers active in the small houses. The themes of the focus groups were explanations for differences between the two care settings for job demands, job control, and social support.

The observation reports, interview transcripts, and focus group transcripts were grouped per case before conducting the analysis. In our analysis, we coded our narratives because it not only reduces data complexity, but also brings forth new insights in the data findings (Charmaz, 2006). The coding process proceeded as follows: The first author read all of the data for every case and proposed an initial coding; the last author then checked the codes. The analysis was iterative, and moved between empirical data and theory. This iteration was also reflected in the use of the Gioia-methodology (Gioia et al., 2013), which outlines how to create a simpler but also more sensible data structure by moving from narratives to theoretical concepts. In using this method, we first identified ‘first-order’ codes, which represent the expressions of care workers. The codes were thereafter placed together in one document, and thematically grouped to create second-order concepts. More theoretically aggregated dimensions were then detailed by grouping these second-order concepts. Figure 19 illustrates the data structure for the factors explaining the QWL of care workers. In the finding section, quotes of care workers and managers, and notes of the observation reports are shown to illustrate work experiences.

Figure 19: Coding overview and thematic analysis of factors impacting care workers' quality of working life



8.3.2.3 The use of pedometers: phase 3

In the interviews (see phase 2) many respondents related QWL to walking distances; these were longer in the adapted building than in the small houses. According to the respondents, the long hallways in the adapted building caused the walking distances to be longer. In March 2017 we gave care workers pedometers to detail whether there were in fact differences in walking distances between the two care settings. 22 care workers in the adapted building, and 29 care workers in the small houses wore a pedometer for one week. The validated pedometer 'Omron Walking Style HJ-320' was used (Park et al., 2014). The analyses were conducted through a generalized linear mixed model, as we had several measurements (i.e. counted steps) for every care worker, and there was a Poisson distribution of the data. The same significance levels were used as the ones for the one-way t-tests in phase 1, and we also used SAS version 9.4 during the data analysis. The data are presented for two groups of care workers, comparing both cases. The results were presented to the care workers, which they deemed to be reliable in light of the daily care setting.

8.4 Findings

We first compare and examine the impact of the built environment on the QWL of care workers in the small houses, and the adapted built environment (phase 1). Thereafter, explanations are given for these study findings (phase 2).

8.4.1 Phase 1: showing QWL differences between building settings

Phase 1 compares the quality of working life of care workers in the two cases. Table 19 and Table 22 (column 4) summarise the findings of the one-tailed t-tests for the sub dimensions of the three QWL dimensions: job demands, job controls and social support. First, the scores for 'variability', 'complexity', 'completeness', 'repetitiveness', and 'time pressure' differed significantly between the care settings. Jobs in the small houses had a higher mean score for 'variability', 'complexity', 'completeness', and had a slightly higher score for 'emotional demands' and 'qualitative work overload'. The mean scores were lower for 'repetitiveness' and 'time pressure, and slightly lower for 'predictability' in the new building than in the adapted building. Second, job control differences were not statistically significant. The mean scores were slightly higher for 'job autonomy' and 'organising tasks' in the new building than in the adapted building. Third, the mean score for 'support from supervisors' and 'supply of information' was slightly higher in the new buildings, while the mean score for 'peer support' was significantly higher in the adapted building than in the new one. We thus confirmed in phase two that care workers experienced significantly higher job demands in the small houses, but we did not find that care workers were more able to deal with these demands. Peer support scored significantly lower in the small houses, but supervisory support and the sub dimensions of job control did not differ across care settings.

Table 19: Scale means and standard deviations of quality of working life dimensions per building

Aggregate QWL dimensions	**QWL sub dimensions**	**M Adapted building (SD)**	**M Small houses (SD)**	**M Adapted building (SD) - M Small houses (SD)**	**F (p-value)**
Job demands	Repetitiveness	2.31 (0.96)	1.92 (0.73)	+0,39	1.71 (<.10)
	Complexity	4.05 (0.77)	4.32 (0.42)	-0,27	3.72 (<.05)
	Variability	2.99 (0.59)	3.41 (0.61)	-0,42	1.07 (<.01)
	Completeness	3.30 (0.72)	3.59 (0.55)	-0,29	1.73 (<.10)
	Predictability	2.80 (0.73)	2.72 (0.87)	+0,08	1.42 (>.10)
	Emotional demands	4.12 (0.61)	4.19 (0.61)	-0,07	1.02 (>.10)
	Qualitative work overload	2.79 (0.71)	2.86 (0.95)	-0,07	1.75 (>.10)
	Time pressure	3.30 (0.74)	2.87 (0.90)	+0,43	1.47 (<.05)
Job controls	Organising tasks	3.59 (0.81)	3.70 (0.40)	-0,11	4.11 (>.10)
	Job autonomy	3.04 (0.93)	3.05 (0.65)	-0,01	2.07 (>.10)
Social support	Support from supervisors	3.47 (0.86)	3.50 (0.81)	-0,03	0.11 (>.10)
	Support of peers	3.56 (0.63)	3.32 (0.53)	+0,24	1.37 (<.10)
	Supply of information	3.21 (0.62)	3.14 (0.50)	+0,07	1.54 (>.10)

There may also be differences at a lower level of aggregation. Table 20 shows the findings of the t-tests for the eighteen QWL items, which differed significantly across the two buildings. The findings of the t-tests for the other fifty-five items suggested no significant difference between the built environments;

these findings are presented in Appendix 7. The mean scores of items of repetitiveness (1 item), predictability (1 item), variability (3 items), complexity (2 items), time pressure (2 items), completeness (3 items), qualitative work overload (1 items), organising tasks (3 item), and social support (2 item) differed significantly across care settings. The items show higher job demands (except for the items of time pressure which were lower), higher organising tasks, and lower peer support (i.e. more job isolation) in the small houses than in the adapted building.

In sum, pairwise comparisons showed that for 37 out of 55 items the built environment did not significantly contribute to overall QWL differences between care settings, yet 18 items did contribute significantly (see Table 16). Care workers in small houses experienced higher job demands (except for time pressure), while social support scored lower so that care workers had less opportunity do deal with these increased demands. For job control, only items of 'organising tasks' were higher in the small houses.

Table 20: Means and standard deviations of quality of working life items, which differed significantly between building settings

Aggregate QWL dimension	QWL items		M Adapted building (SD)	M Small houses (SD)	F (p-value)
Job demands	1.	My job requires me to repeat the same tasks. (item of repetitiveness)	2.94 (1.37)	2.26 (1.19)	1.31 (<0.05)
	2.	I can do my job mostly on routine. (item of predictability)	3.17 (1.20)	2.37 (0.96)	1.58 (<0.01)
	3.	My working method is always the same (item of variability)	3.38 (1.05)	2.16 (0.76)	1.87 (<0.01)
	4.	The sequence of my tasks changes nearly all the time (item of variability)	3.56 (0.93)	3.95 (0.62)	2.23 (<0.05)
	5.	I regularly perform the job of my colleague or colleagues and vice-versa. (item of variability)	2.00 (1.11)	2.63 (1.07)	1.09 (<0.01)
	6.	I must pay a lot of attention in my job nearly all the time. (item of complexity)	4.37 (0.81)	4.79 (0.42)	3.72 (<0.01)
	7.	I need to look at different things at the same time in my job. (item of complexity)	4.42 (0.82)	4.79 (0.42)	3.78 (<0.05)
	8.	I have to work very hard. (item of time pressure)	3.82 (0.98)	3.21 (1.18)	1.45 (<0.01)
	9.	In general I have enough time to get all my work done. (item of time pressure)	3.12 (0.91)	3.73 (0.88)	1.51 (<0.05)
	10.	I myself judge the quality of my work (item of completeness)	3.14 (1.12)	3.74 (0.99)	1.27 (<0.01)
	11.	I myself must correct the mistakes in my work (item of completeness)	3.57 (0.92)	3.95 (0.85)	1.17 (<0.10)
	12.	I myself collect the material or information needed for my work (item of completeness)	3.29 (1.15)	3.53 (1.02)	1.28 (<0.05)
	13.	My job has aspects that are too burdensome (item of qualitative workload).	2.33 (0.78)	2.72 (1.02)	1.71 (<0.10)
Job control	14.	I have an influence on the decisions of my department (item of organising tasks)	3.49 (0.95)	3.79 (0.63)	2.27 (<0.10)
	15.	When I have problems in my work, I can ask my colleagues from other departments for help (item of organising tasks)	3.34 (1.14)	3.79 (0.78)	2.08 (<0.05)
	16.	I am also partly responsible for the organisation of work in our team or department (item of organising tasks)	3.53 (1.24)	4.00 (0.47)	6.88 (<0.01)
Social support	17.	I talk to my colleagues of my own department about work (item of peer support)	4.11 (0.58)	3.84 (0.83)	2.05 (<0.01)
	18.	I am often alone at my workplace (item of peer support)	2.57 (1.17)	3.74 (1.24)	1.12 (<0.10)

8.4.2 Phase 2: explaining QWL in both building settings

Phase 2 explains the findings of phase 1, and therefore examines in detail why some quality of working life dimensions differed between cases and others did not. The main finding of phase 2 is that the built environment has an individual as well as a collective (through the interaction of the built environment with other factors) impact on the QWL of care workers. This collective impact can be seen in two ways. First, the impact of different factors on QWL occurred simultaneously. QWL was, thus, not only influenced by differences in the built environment, but also by care workers' and residents' behavior and skills, organisation of care, and external organisational environment (i.e. governmental regulation

and inter-organisational collabouration). Second, factors impacting the quality of working life of care workers were interlinked. This is illustrated by the impact of architecture on resident behavior, which in turn impacts the QWL of care workers. We first consider the individual impact of the built environment; thereafter we clarify the collective impact of the built environment and other factors on the QWL of care workers.

8.4.2.1 Built environment: architecture and infrastructure

The built environment, and especially the infrastructure influenced the QWL of care workers (see arrow 1 in Figure 20). Both the architecture and infrastructure are the output of our cross-case comparison (see Figure 19). First, the *architecture*, consisting of small houses, led to higher demands (complexity, completeness, variability, predictability, qualitative work overload, and lower job repetitiveness), as care workers' and residents' overview over the living units improved. This improved overview increased the care workers' accessibility to relatives and residents. Care workers had a better grasp of what work had to be done, and could swiftly (because of the smaller walking distances) intervene in the care process when needed (see also items 1-4 in Table 20). This caused the relationships between care workers and residents to be stronger as well, resulting in higher emotional demands when residents would deteriorate. In the adapted built environment, care workers, working in residents' rooms in the long hallway, had no such overview (see also items 6-7 in Table 20). This meant they could easily ignore residents in the other parts of the living unit and concentrate solely on the tasks at hand:

> When we are in the resident rooms in the morning to deliver personal care, we do not see what is happening in the living area [care worker points to the long hallways]. (…) If there is (...) a conflict in the living area, we do not notice that. (care worker in the adapted building)

The architecture of the small houses reduced the care workers' experience of time pressure (see also items 8 and 9 in Table 20). This was due to reduced walking distances because of shorter hallways, the integration of kitchens and sitting areas, and the improved overview over the care process in the small houses:

> Sometimes I have to wash someone in the morning and then suddenly there is no linen anymore. I then have to go to the end of the long corridor, and all the way back. I lose a lot of time because of this. (care worker in adapted building)

The architecture had a positive impact on job control. The improved room composition, the small houses, and the reduced walking distances all influenced job control. In fact, this facilitated care workers to make decisions on their own, and to use their job controls when needed (see also items 14-16 in Table 20). This was exemplified by one of the care workers who stated that the architecture increased job control by increasing care workers' overview over the living units:

> Because it is such a long hallway [in adapted building], you have no overview (...) If we are working on one side of the corridor, we do not see the other side, it is too far away (...) (care worker in adapted building)

The absence of offices for supervisors, the physical separation of living units, and the absence of nursing stations made it difficult to ask support from peers and supervisors and to provide information in the small houses. This could therefore increase experiences of social isolation (see also items 17 and 18 in Table 20), leading to high stress levels (see also item 13 in Table 20). This was also stated by one of the care workers:

> In the beginning, I felt really lonely here [new building]. I was alone in the living unit, sometimes you could see the other care workers in the units below and then I waved, but I was used to hearing each other [referring to her previous job in a conventional large-scale home]. (care worker in small houses)

Second, the *infrastructure* influenced care workers job demands, social support and job control. The infrastructure increased social support in both buildings, but during observation was seen that the small houses made more use of it. This is exemplified by the telephones, which care workers had on them to help each other when a colleague called for help (see also items 5 and 15 in Table 20), or the laptops used to transfer information to care workers of different shifts. The modern infrastructure, with the purported aim to improve care workers' job control, threatened to cause a reverse effect. Care workers had difficulties understanding how this infrastructure functioned, which led them to have difficulties choosing their own work method and work pace. In instances when care workers understood how the modern infrastructure functioned, it brought about higher job demands. It also facilitated care workers to perform different care and personal tasks, as it took less time to perform one task. This allowed care workers to do more complex, complete and unpredictable work during their shifts (see also items 11-13 in Table 20). An exception was the demand 'time pressure', which was lower in the small houses due to the infrastructure (see also items 8 and 9 in Table 20). The more modern equipment in the small houses helped to perform care and personal tasks:

> We only had one bath in our living unit [referring to adapted building]. So when I washed them [residents] (...) and I forgot something in their room, I had to walk back all the way [through the long hallways]. While here [in the small houses], I can wash them in their room. So when I forget something, it is a short walk. That creates of course less time pressure. (Care worker in small houses, who also worked in the adapted building).

8.4.2.2 From the individual impact to the combined impact of factors

Having detailed the individual impact of the built environment, we now turn to how the built environment influences QWL in interaction with other factors: the collective impact on QWL. Care workers and managers stressed that it was a combination of factors rather than the individual impact of the built environment that influenced the QWL of care workers. In the next sections these factors are grouped together in accordance with the three second-order concepts, which are the output of our cross-case comparison (see Figure 19). Arrows one to eight in Figure 20 outline the collective impacts of factors on the QWL of care workers, which are further expanded upon in the next sections.

8.4.2.2.1 Stakeholders' behavior and skills: residents, and care workers

Care workers emphasized the impact of the built environment on QWL through the behavior and skills of residents, and care workers (see arrows 2 and 3 in Figure 20). The behavior of stakeholders is detailed with first-order codes, which outline the influence of care workers' skills, residents' behavior, and care workers' behavior on QWL experiences. We outline the impact of the built environment on residents and care workers; thereafter we show how this influences QWL experiences.

First, the built environment had an impact on the necessity for certain skills and attitudes of care workers. In the small houses care workers needed to be able to build strong relations with residents and family, without getting over-engaged or becoming too passionate about their job. Care workers also needed the skills to create a homelike atmosphere with a small group, living in a limited physical area. This is illustrated by a care worker, who followed a course on dementia, playing the same '60s music every hour in order to make the residents feel calm. Care workers in the adapted building, with the long hallways, needed to have better care and technical skills, as these helped to facilitate and realise all care in a timely manner. These different demands for skills and attitudes in both buildings influenced job demands, job control and social support. This is illustrated by care workers with an inherent care passion, which led to experiences of having too little job control (e.g. care worker wants to have a more influential say in the care process), too little support, or excessive job demands:

> They [supervisors] tell me: "You know that you work a lot, you should work less, and let your colleagues do more work." But that is not who I am, I cannot go home until all work is done. Residents deserve good care. (…) I would rather work overtime, and not mention that [to my supervisors], so that all work is completed. (care worker in adapted building)

Second, the built environment in the small houses impacted the behavior of residents and care workers, which in turn improved the quality of working life of care workers. An example of this is the architecture creating an environment for the residents to sit in small groups and to help each other without support of care workers. The residents were also given fewer stimuli because of the more modern infrastructure,

an increased number of places for residents to sit in solitude, and the archetypical small houses. Resident behavior especially affected job demands. A resident doing the dishes and thus relieving some time pressure for the staff exemplified this. An example with a negative effect was an agitated resident that led to an increased workload for care workers. It was also argued that resident behavior was always unpredictable, and that therefore the nature of care tasks was unpredictable as well. A care worker gave the example that one moment the job can be relaxing, while an hour later a resident could have fallen down. Most care workers did however also argue that the same sequence of tasks was present within their daily job. In particular, collectively, resident behaviors had a major influence on job demands as well. Many care workers argued that one restless resident makes all residents restless, which could heavily increase the care workers' job demands. In addition, there were frequent peaks in job demands caused by residents wanting to use the same facility simultaneously (e.g. wake up, shower, have breakfast). In general, resident composition within a living group was crucial, as this had an impact on care workers' job demands as well:

> We're in a unit now with a heavy demented group, which is sometimes very hard (...) you cannot leave them [residents] alone for a long time, as they go wandering in the rooms of other residents. (care worker in small houses)

Third, the built environment impacted care workers' behavior, which in turn impacted both their own and their colleagues' job demands, job control, and social support. Care workers found it easier to react timely and accurately to resident behavior in the small houses. This led to a reduction of job demands in care jobs. Otherwise, residents could for instance become even more agitated, leading to higher time pressure for care workers. The architecture in the adapted built environment encouraged care workers to sit in the nursing station, enhancing their peer support. These nursing stations were absent in the small houses. Notably, care workers behaved differently towards residents, which was independent of the built environment. This was exemplified by a care worker, who always gave a resident with dementia a doll, while another care worker did not do this. Second, care workers' behavior directly influenced their own and their colleagues job demands, job control, and social support. Some care workers (1) made more decisions by themselves while others had a wait-and-see attitude, (2) performed more tasks while others stuck to their assigned tasks, or (3) created opportunities in which they could talk to colleagues. This last is evident in the case of the nurses in the small houses, who take their daily breaks in the same living unit:

> During breaks or quiet moments nurses sit (…) in one living unit in a small house. Care workers in this living unit have therefore more peer support than colleagues in the other living units. (observational note in small houses)

8.4.2.2.2 Organisation of care: care vision, organisational structure, and human resource practices

Care workers underlined the importance of the impact of the built environment on QWL through the organisation of care (see arrows 4 and 5 in Figure 20). The organisation of care is detailed with the first-order codes: homelike care vision, human resource processes and organisational task division (i.e. organisational structure) on QWL experiences. There was thus an impact of the built environment on the organisation of care, which in turn impacted the QWL. First, the impact of the built environment on the organisation of care is exemplified by explaining how the long hallways without physical separation between living units, in practice, often led to an organisational structure where care teams take care of the total resident group at each floor (i.e. each floor had two living units). Care workers were not really allocated to a single resident group. In the small houses the built environment enhanced an organisational structure with low task division between care workers and work units. The physical separation between the small living units led care workers to perform a broad range of personal and social tasks without much reference to peers or supervisors. An organisational structure with a low task division between jobs and small work units obstructed care workers' job demands and job control, as well as lowered social support. The small number of residents per living unit and thus few staff members brought about broad task packages and a flat hierarchy. This is illustrated with four examples. The small number of residents in each living unit induced strong relationships between cares workers and residents, which led to high emotional demands when a resident deteriorated. Care workers had high job demands because they had to take care of all supporting and administrative tasks as well, since few administrative functions were present to help them with paper work. The broad task packages for care workers in the small houses led to low social support. The reason for this was that care workers were working independently from each other. Despite that, care workers were mostly able to realise their work without support from peers or supervisors. Management and care workers argue that there was a flatter hierarchy in the small houses, which led to higher levels of job control for care workers:

> It is very unclear for us [care workers]. Either they [managers] give us carte blanche, give us full responsibility, or they take the ultimate decision. Sometimes that's very unclear, because we take a lot of decisions, (…) but if they know what we have decided then they change everything. (care worker in adapted building)

Second, the built environment impacted QWL experiences related to the care vision. Some care workers argued that it was easier to realise homelike living in the small houses seen that residents were living in small units. In contrast, other care workers argued that it was easier to realise the care vision of 'homelike coziness' in the adapted building. The built environment in the small houses was of a more modern nature, while the small houses exhibited a cozier and more old-fashioned feeling. The *care vision* of 'homelike living' increased job demands in both buildings. Care workers had to respond, preferably

rapidly, to residents' demands. This became especially stressful when several residents required care simultaneously:

> Most of our residents want to be washed in the morning; this creates time pressure. (...) But I wash them if they ask for it, because that is more human and homelike. (care worker in small houses)

Interestingly, the organisation of care had also a major impact on resident behavior, and therefore, as explained in the previous section, also on care workers' experiences of job control and job demands (see arrows 6 and 3 in Figure 20). We illustrate this in three ways. First, a smaller number of residents in living units led to more peaceful common activities, which in its turn led to less agitated residents and fewer job demands for care workers. Second, care workers could not always adequately respond to resident behavior, because the division of necessary tasks led care workers to experience lower job control. Lastly, the care vision 'small-scale living' led to more autonomy for residents. In both buildings this translated to altered relations between care workers and residents, in comparison to conventional nursing home care. Residents decided how to organise their own life, which had major consequences for care workers in terms of professional role demands and controls (i.e. when, how and which tasks need to be conducted):

> Our [care] vision is to give person-oriented care, they [residents] take thus (…) control over their own lives. (care worker in the adapted building)

8.4.2.2.3 External organisational environment: government regulations and inter-organisational collabouration

When examining the impact of the built environment on QWL, managers and care workers argued that it was the external organisation environment that was especially challenging. Here, two second-order types were identified: government regulation and the relation of the focal nursing home with other care organisations (i.e. the inter-organisational collabouration). Until now, we have only referred to intra-organisational factors. Government regulations influenced the built environment as well the organisation of care (see arrows 7 and 8 in Figure 20). Managers gave the example of the minimum size of resident rooms ($25m^2$) within each living unit. This caused the common areas in the new building to be less spacious, which influenced resident behavior (e.g. more agitation) and therefore also the quality of working life of care workers. Another example is that government regulation influenced which tasks can be fulfilled by what specific care professions. This influenced job completeness and variety through the organisational structure. Care assistants are in Belgium, for instance, legally not allowed to give injections. In addition, we found that relations with other care organisations greatly influenced the built environment as well. Centralised facilities (e.g. kitchen and laundry) across organisations prompted tasks, which could not be divided amongst care workers within the local living unit. A consequence of

this was that tasks remained incomplete, since that front care workers were not able to perform these centraliseed tasks satisfactory.

We have a large kitchen in a neighboring nursing home, everything is prepared there.

8.4.3 Phase 3: the example of walking distances

Evidence for the combined impact of the discussed factors on QWL in this section can be found in the case of the walking distances. In phase 2 care workers argued that longer hallways in the adapted built environment had led to longer walking distances. As discussed, this resulted in higher job demands and less job control. In this section we will have a deeper look at this example.

Table 21 shows the walking distances in the adapted building and in the small houses. The average number of steps per hour in the small houses is 665 steps (185), in the adapted building this is 712 steps (254). This equals a walking distance of 419 meters (141) per hour in the small houses, and of 548 meters (237) in the adapted building. Contrary to the care workers' opinions, the differences between both buildings are not significant.

Table 21: Walking distances in the small houses and the adapted building (in metres)

Results of the pedometers	**M Adapted building (SD)**	**M Small houses (SD)**	**p-value**
Walking distances (in meters per hour)	548 (237)	419 (141)	>0.10
Walking distances (in steps per hour)	712 (254)	665 (185)	>0.10

Reanalysis of the observations, interviews and focus groups in phase 2 showed that the walking distances did not only depend on the built environment, but also on all factors discussed in the previous sections. We give three examples. First, an example of the influence of resident behaviour is that residents sat down more often in the living room of the small houses, and had therefore more opportunity to ask for help. Second, an example of the impact of the organisation of care was that the normalised and small-scale care vision gave residents and care workers the possibility to make decisions themselves. In this scenario care workers might have to walk the whole morning from one side of the hallway to the other side of the hallway, or to the living room and back. In a conventional nursing home care workers can wake up residents one by one (based on the room composition). This impact took place independently from the built environment. Third, an example of government regulation which increases care workers' walking distances independent of the built environment is on medication:

> We cannot leave any medication unattended. I was already reprimanded [by the head nurse] because I took all of the medication to the kitchen [where the residents eat] at the same time [to reduce walking distances, so that all residents can have their medication simultaneously and the care worker does not have to walk between the kitchen and the shelve with medication], so now I do not do that anymore. (care worker active in small houses)

The findings of phase 2 are thus confirmed in phase 3. It was found that the built environment was important, but we put the importance of the architecture into context by also discussing other key factors, which are related to the built environment. These factors clearly mitigated the impact of the built environment on QWL, and explain why there were no statistical significant differences between both buildings. The built environment influenced QWL through these factors, but these factors also each had an individual impact on QWL.

8.5 Discussion

Studies claim that care workers experience a higher QWL in normalised small-scale nursing homes (Vermeerbergen et al., 2017). It is however unclear whether this positive impact on QWL is due to the care concept or due to the purpose-built small houses which often go along with it. We compared the QWL in a nursing home realising small-scale living in purpose-built small houses with that of an adapted hospital-like building with long hallways. We discuss two findings in greater detail.

First, this study found that the built environment had an impact on the quality of working life. Table 22 summarises the findings of the first two phases regarding the impact of the built environment on QWL. Across the phases, the findings were similar (in agreement), refined each other (refinement), or were opposing (disagreement).

Phase 1 and 2 had similar findings regarding the outlined higher job demands in the small houses (i.e. less repetitive, more complex, more variable work, and more complete). An exception was the demand ‘time pressure’, which was lower in the small houses. Support from supervisors was found not to differ between care settings. Social support from peers was in both phases found to be lower in the small houses.

Phase 2 refined the findings of phase 1. It was found that some characteristics of the built environment enhanced job control (i.e. job autonomy, and organising tasks), while others decreased job control. The finding of phase 1, which pointed out that job controls did not differ significantly across the cases, were thus detailed and further explained in phase 2. In other words, the findings did not differ significantly because the built environment impacted job control both positively and negatively.

Phase 1 and 2 had opposing findings with regard to job demands (i.e. see: predictability, emotional demands, and qualitative workload) and social support (i.e. supply of information, and support from

supervisor). While phase 1 did not find differences between the cases for these QWL dimensions, phase 2 outlined that the built environment enhanced these job demands and lowered these social support dimensions. Explanations for these conflicting findings have been explained in phase 2, where it was outlined that besides the built environment also other factors influence the QWL of care workers. These other factors may have played a role in the findings of phase 1, which did not account for all these factors. In the next paragraphs we outline further this interplay of factors influencing QWL.

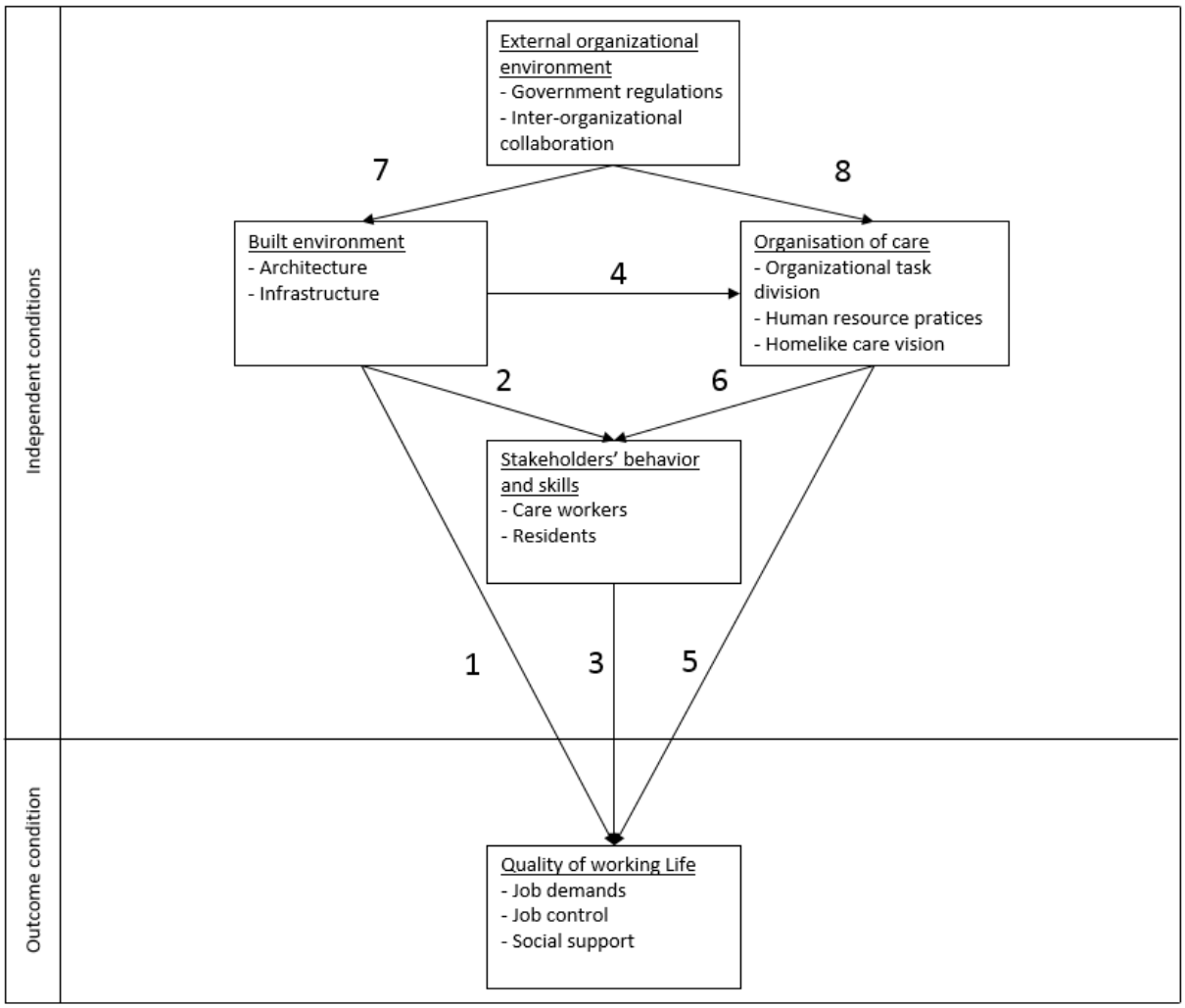
Table 22: Consistency across the different stages for the eleven quality of working life dimensions

Aggregate QWL dimensions	**QWL sub dimensions**	**Findings over the three stages**		
		Phase 1	**Phase 2**	**Congruency between stages**
Job demands	Repetitiveness	-	-	Agreement
	Complexity	+	+	Agreement
	Variability	+	+	Agreement
	Completeness	+	+	Agreement
	Predictability	=	-	Disagreement
	Emotional demands	=	+	Disagreement
	Qualitative work overload	=	+	Disagreement
	Time pressure	-	-	Agreement
Job controls	Organising tasks	=	+/-	Refinement
	Job autonomy	=	+/-	Refinement
Social support	Support from supervisors	=	=	Agreement
	Support from peers	-	-	Agreement
	Supply of information	=	-	Disagreement

Note: "=" indicates no (significant) difference between nursing settings; "+" indicates a higher score for the small houses than for the adapted built environment, "-" indicates a lower score for the small houses than for the adapted built environment, and a "+/-" indicates that some care workers scored lower, while other care workers scored higher within the same care setting.

Second, this study confirmed that the built environment impacted the QWL of care workers, but it was shown that the built environment also had an indirect influence on the QWL of care workers through other factors. The other factors in the organisational context were: stakeholders' skills and behavior, the organisation of care, and the organisation environment. These factors explain why there were no significant differences between the buildings for all the QWL dimensions. Figure 20 summarises the relation between the factors influencing QWL, and stresses the relative importance of the built environment, as it is only one factor in the collective of factors influencing QWL. It is, however, through these factors that the quality of working life of care workers is shaped.

Figure 20: Factors influencing care workers' quality of working life in normalised small-scale nursing homes



8.6 Conclusion and contributions

The concept of homelike and small-scale living in nursing homes is generally argued to be a promising step forward towards an improved QWL of care workers in nursing homes (e.g. Loe & Moore, 2012; Te Boekhorst et al., 2008; Verbeek et al., 2012). Nursing homes realising this concept, however, often combined the implementation of this concept with a new built environment (Van Steenwinkel et al., 2012). It was therefore unclear in previous studies whether the concept or the built environment improved the QWL of care workers. This study compared the QWL of care workers in a nursing home realising normalised small-scale living in two cases: purpose-built small houses and an adapted building with hospital-like long hallways. In this study especially we showed that care workers' experiences of excessive job demands and social isolation are an area of concern in purpose-built small houses.

Our research contribution is twofold. First, particular calls have been made in the area of HRM, social sciences and healthcare to consider the QWL of care workers in nursing homes (Burns, et al., 2016; Cooke & Bartham, 2016; Kim & Gordon, 2014; Van der Borg et al., 2017). The ageing population in Western society namely leads to a higher demand for care workers, willing to work in nursing homes. This study contribute to this literature by examining whether a higher QWL could be (partly) explained through the new built environments (i.e. small houses), often realised along with the implemented new ways of working or by the care concept itself. It was found that job demands were higher (except for time pressure) in the small houses, but that care workers did not receive more job control, and social support was even lower. In the small houses there seemed thus to be a move towards the ISO-strain jobs (high demands and low social support), as these jobs are termed in the job demands-control-support model (Johnson & Hall, 1988). This move makes care jobs less appealing, more stressful and more at risk for health problems. Moreover, the issues with QWL found in normalised small-scale living (social isolation and excessive job demands; Vermeerbergen et al., 2017) seemed thus more present in the small houses than in an adapted built environment. In combination with the findings of previous studies on QWL in normalised small-scale nursing homes (e.g. Loe & Moore, 2012; Verbeek et al., 2012), it can thus be argued that it is primarily the care concept and not the built environment, which improves the QWL of care workers.

Second, this study contributes conceptually to the work, organisation and HRM literature on QWL (Grote & Guest, 2017; Wilkinson & Fay, 2011) by showing that the collective impact rather than the individual impact of factors influences the quality of working life of care workers. It shows, as previous studies did, that the technical environment (e.g. built environment) has an impact on the working life of care workers (Ilsøe et al., 2017; Mirvis et al., 1991). What we add to the literature, is that its impact has to be understood as only one factor in the collective framework of factors influencing the quality of working life of care workers.

Our research has major practical implications. Substantive increases in life expectancy mean that the number of senior citizens in Western countries is set to double between 2015 and 2100 (Kontis et al., 2017). This ageing of Western societies will lead to a higher demand for beds in nursing homes, and coincide with a higher demand for care workers (Pacolet et al., 2014). Ageing societies will however also coincide with a decrease in the number of health professionals at working age, leading to increased shortages in care sector (Pacolet et al., 2014). Increasing the quality of working life of care workers in the nursing home sector will be part of the solution to reduce these shortages (Hussain et al., 2012). It will make it possible to retain experienced care workers and attract future care workers to jobs in the nursing home sector. Previous studies have shown that the concept of homelike and small-scale living is potentially a step forward towards an improved QWL in the nursing home sector. The findings of this study should encourage practitioners to realise the concept of NSSL, because it's beneficial for the QWL

of for care workers. However, practitioners have to be aware that when the concept is introduced along with a small housing project, strategies have to be developed that take care of job isolation and excessive job demands. We specifically encourage practitioners to do further research, in collabouration with academics, on how to enhance social support and decrease excessive job demands. Our study findings suggest that it will be worthwhile to have a look at other factors influencing the QWL of care workers in the nursing home context: stakeholders' skills and behavior, the organisation of care, and the external organisation environment

We outline four future research directions. First, our study compared the QWL of care workers in normalised small-scale nursing homes within purpose-built small houses, and within an adapted built environment with hospital-like hallways. Previous studies compared working in normalised small-scale and non-normalised large-scale nursing homes, but did not include the built environment within this comparison (Vermeerbergen et al., 2017). Future research may expand our focus by comparing four groups of care workers, which differ in the way care work is conducted, (normalised small-scale vs. non-normalised large-scale) and the built environment in which they are working (small houses vs. existing building).

Second, we showed QWL differences between purposely build houses and an adapted built environment. Previous studies highlighted the impact of QWL on the residents' quality of life (Burns et al., 2016). We encourage future research, which examines differences in residents' quality of life and care between built environments, and the impact of professionals QWL on residents' outcomes across built environments.

Third, previous studies underlined the individual impact of the built environment (Danielsson et al., 2014), employees' competencies (Van den Broeck et al., 2011), the organisation of work, the nature of tasks (Humphrey et al., 2007), government regulation (Hackman, 2003), and relations between organisations (Marcolin et al., 2016) on QWL. We noted the collective impact of these factors on the QWL of employees. Future studies could further examine how these different factors influence each other in different (care) settings, and how and which combination of factors could improve the QWL of employees.

Fourth, it was detailed that care workers in small houses experienced higher job isolation and higher job demands (except for time pressure) than care workers in the existing building. Previous research showed that experiences of job demands, job control and social support depend on individual experiences, and is thus employee specific (Burgess & Connell, 2008). Future studies could enhance our understanding by examining whether, and which care workers were able to work in isolated jobs (presence of person-job fit), or whether these QWL issues led in general to negative outcomes for care workers and where thus not person-specific.

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CHAPTER 9. CONCLUSION

There is a need for studies on how to improve care workers' quality of working life in nursing homes (Cooke & Bartram, 2015; Hussain et al., 2012). This is important from a human perspective, since all employees deserve good jobs. However, two major demographic transitions in Western populations make it an absolute priority for the next decades. The number of seniors needing care in nursing homes will increase, and the proportion of the population at working age will decrease (Katz, 2011; Spetz et al., 2015): this will make it difficult to find sufficient care workers willing to work in nursing homes. Moreover, at present, numerous studies show that jobs in nursing homes are often stressful and unhealthy (e.g. Woodhead et al., 2016; Kirkcaldy & Martin, 2000), while high-quality jobs are a part of the solution to attract new care workers to the sector, to retain experienced care workers, and to convince care workers who left the sector to return to the sector (Hussain et al., 2012). Jobs will potentially even be more demanding as future residents are expected to have higher care demands and more profound expectations on person-oriented care (Brune, 2011; Pacolet et al., 2014). When no action on quality of working life is been taken, it is expected that labour shortages will appear in the next decades (Hussain et al., 2012).

Since the 1970s, calls for more person-centred care have prompted a shift towards innovation in the organisational forms used to deliver care (Adams et al., 2017; Kane et al., 2007). This dissertation examines the concept normalised small-scale living (NSSL), one of these organisational forms. NSSL nursing homes aim to give seniors the opportunity to have a life mimicking the one they had outside the residential care facility. This dissertation explores whether care workers in NSSL have a higher or lower quality of working life than those in conventional nursing homes, and how this can be explained.

In addition, it is examined in this dissertation whether the fields of organisation studies, and work and employment studies contribute to an enhanced understanding of the impact of NSSL on care workers' quality of working life. It was specifically argued that the way how work is divided across work units and across jobs needs to be unraveled, as it has a proven impact on employees' quality of working life (Delarue, 2009; De Sitter, 1998; Vermeerbergen et al., 2016). At the moment, the NSSL concept has underlined the importance of integrated jobs, but it has given insufficient attention to the broader organisation of work.

The sections below summarise the findings of the individual research papers, describe theoretical contributions of this dissertation, outline policy and practical implications, and suggest avenues for future research. It summarises therefore the main contributions, suggestions for future research, and implications outlined in the separate research papers.

9.1 Summary of individual research chapters

This section summarises the findings of the individual research chapters, and starts with outlining the findings of the two review studies (chapter 4 and chapter 5). These studies overviewed all empirical international (chapter 4) and Flemish (chapter 5) studies which compare the working life quality in NSSL nursing homes and conventional nursing homes. The findings of chapters 6, 7, and 8 are used to clarify the findings of the overview studies.

Chapter 4 and 5 outline that care workers in NSSL nursing homes have more job control to deal with increased job demands than care workers in conventional nursing homes. Care workers in NSSL receive broader task packages, including personal and social care tasks. Emotional demands and job variability are higher, while time pressure is lower. These higher demands are combined with more control over work. There are two main working life issues within NSSL. First, job demands in NSSL are sometimes too high. An example is time pressure, which is in general lower, but is from time to time too high. Second, some care workers experience social isolation from peers and supervisors. High job demands are then often too high, and cannot be balanced by sufficient job control. The review studies outline that both issues are more present in some NSSL nursing homes than in others.

Chapter 6 notes that the realisation of the NSSL concept across nursing homes is inherently heterogeneous: practice variation is the norm rather than the exception. This variation may explain why some quality of working life issues were more present in some nursing homes (see also conclusions of chapters 4 and 5): nursing homes realised the concept differently. The findings of this dissertation indicate how practice variation is influenced by the constraining context (technical, political, cultural and financial) mediated by managerial interpretations (full or partial buy-in) of the concept, and managers' agentic responses (alleviate, accept, accede) to constraints. Notably, the question was raised whether a full or a partial implementation of the practice advances care workers' quality of working life. Some managers did for instance not fully adopted the concept because of concerns for care workers' quality of working life.

Chapter 7 overviews the intra and supra organisational division of work within NSSL nursing homes, and found that NSSL nursing homes had various organisational structures. At one extreme, the daily practice team organises independently all care and social tasks for few residents in a ward. At the other extreme, this team is highly dependent on other work units. It was outlined that different structures may lead to different outcomes for care workers' quality of working life. This chapter thus explains in more detail the influence of practice variation on the quality of working life (see also conclusions of chapters 4, 5 and 6).

Chapter 8 shows that sociotechnically inspired NSSL is realised in an adapted building with small living units grouped around large hallways, and in living units within purpose-built small houses. This dissertation outlines that the built environment influences care workers' quality of working life

experiences. The manner in which NSSL is realised in practice thus influences employees' working life and could explain why the working life issues are more present in some NSSL nursing homes than in others (see also conclusions of chapters 4 and 5). It was found that jobs were broader and more complex in the small housing projects (i.e. job demands increased) than in the adapted built environment. An exception was time pressure, which was lower. Higher job demands were however not compensated with higher regulation capacity (e.g. care workers even mentioned social isolation), leading to a higher risk for worsened mental and physical health outcomes. Chapter 8 does however also outline that quality of working life was not only influence by the built environment but also by employees' and residents' skills and behavior, the organisation of care, and the organisation environment (government regulations and interorganisatonal collaboration).

To summarise, this dissertation shows that the concept NSSL is a step forward for an increased quality of working life for care workers. However, quality of working life issues in NSSL were outlined as well (i.e. social isolation and too excessive job demands). By using insights from organisation studies and work and employment studies (specifically Modern Sociotechnical Theory), it was shown that the organisational structures of NSSL nursing homes and the built environments in which the concept are realised both deviate across nursing homes and impact the quality of working life of care workers. It is argued here that to further improve quality of working life, it is important to detail standards on how to divide work in NSSL and to examine best practices on how care is structurally organised within NSSL. Authors, inspired by MST, argue that jobs have a higher quality of working life in order-oriented and decentralised organisational structures (De Sitter, 1998). In nursing homes, this means that daily care teams are responsible for the whole care process of a particular resident group. Deriving from these findings of the individual chapters, it is important to outline in the next section the main conclusions and theoretical contributions of this dissertation.

9.2 Main conclusions and theoretical contributions

Theoretical contributions are given to the fields of organisation studies (specifically Modern Sociotechnical Theory), work and employment studies, and healthcare and nursing. This dissertation contributes to theoretical debates in organisation studies, and work and employment studies on (1) organisational structures and quality of working life, (2) the built environment in which the designs are realised, and (3) practice variation of concepts realised across organisations. It illustrates in particular the relevance of organisational structures for the quality of working life of employees.

Organisational structures and quality of working life. Most research on employees' quality of working life examines the impact of job demands and job control on employees' health and work outcomes (e.g. Clays et al., 2007; Lindeberg et al., 2011; Pisanti et al., 2016; Van Laethem et al., 2013; Vanroelen et al., 2009). It was outlined in chapter 2 that studies regularly overlook the manners in which high or low

job demands, and high or low job control are shaped (i.e. the larger organisational context). This dissertation contributes to the field of organisation studies, and work and employment studies by lifting a part of the veil of the context in which quality of working life is formed. Inspired by Modern Sociotechnical Theory (De Sitter, 1998), this dissertation namely hypothesises that there is a large impact of organisational structures on employees' quality of working life. This was confirmed in chapter 7 were managers pose that organisational structures create the structural conditions for a low or a high quality of working life.

Practice variation. Many studies on practice variation afford attention to why concepts diffuse in practice when implemented across organisations (e.g. Ansari et al., 2014; Fiss et al., 2012). Although the research focus has in the last decades shifted from attention to practice homogeneity (DiMaggio & Powell, 1983; Sine et al., 2005) to the recognition of practice hetereogenity (Ansari et al., 2010), studies do still use terms like 'fidelity' or 'accuracy' to evaluation practice adoption (Ansari et al., 2014). This dissertation examined in chapter 6 whether and why the concept NSSL varies when realised across nursing homes. It contributes to the literature by showing that practice implementation is rather the rule, while a full adoption of a concept is an exception. In addition, practice variation has also been clarified, as it was shown that it was the configurational impact of the context of nursing homes (i.e. technical, political, cultural and financial context) and the agency of nursing home managers (i.e. their responses to constraints in the context, and their interpretation of the NSSL concept). It has been argued in this dissertation that some manners in which NSSL is realised lead to a higher quality of working life than others.

Built environment and organisational structures. Work and employment studies examine that the built environment highly impacts care workers' quality of working life (e.g. Ilsøe et al., 2017). This dissertation confirms that the built environments lead to different quality of working life outcomes in NSSL nursing homes (see Chapter 8). It contributed to the literature by showing that in an organisation, inspired by Modern Sociotechnical Theory, the built environment influences the quality of working life of employees. It has been argued, for instance, in this dissertation that higher social isolation for care workers is present in cases where small living groups were also physically separated. It was important to outline that the built environment has to be understood as one factor in the configuration of factors influencing care workers' quality of working life. Other relevant factors mentioned in this dissertation are the 'organisation of care', 'care workers' and residents' skills and behaviour', government regulation and inter-organisational collaboration.

This dissertation offers theoretical contributions specifically to the Low Countries Modern Sociotechnical Theory (MST) (De Sitter, 1981; Van Hootegem, 2000). Modern sociotechnical theory is rooted in the classic sociotechnical systems theory, as developed by Trist and Bamforth (1951) and Emery (1959) at the London-based Tavistock Institute (Achterbergh & Vriens, 2010; Van Eijnatten & Van Der Zwaan, 1998). In 1973, Ulbo de Sitter turned the classic sociotechnical theory into a

prescriptive (modern sociotechnical) theory, which makes propositions about the relation between the way tasks are divided in organisations (i.e. organisational structure), and work and health outcomes. Among other theories on work processes, Modern Sociotechnical Theory (De Sitter et al., 1997; Van Eijnatten & Van der Zwaan, 1998; Van Hootegem et al., 2014; Vermeerbergen et al., 2016) maintains as a key argument that jobs are embedded in the structure of an organisation. This dissertation uses the conceptual framework of MST to examine the organisational dimensions, which influence the quality of working life of careworkers. This dissertation contributes to the MST literature because of the chosen sector (i.e. nursing home sector) and the theme (i.e. quality of working life).

Sector. Authors inspired by MST often claim that MST offers a generic analytical framework, which can be applied across sectors (Kuipers et al., 2008). This dissertation examines this claim and indicates whether MST has an added value in the field of healthcare and nursing studies. Classic sociotechnical theory has been developed in the coalmines in the United Kingdom (Trist & Bamforth, 1951). It was found in this dissertation that MST reaches valuable insights for the impact of concepts in healthcare. It is argued that its added value may be that MST offers the building blocks for including an organisational design aspect in the NSSL concept.

Theme. Until now, most research has focused on the impact of quality of working life on employees' health and work outcomes (e.g. Clays et al., 2007; Van Laethem et al., 2013; Vanroelen et al., 2009). It is often claimed that insights from Modern Sociotechnical Theory help to understand why employees have a low or a high quality of working life (e.g. De Sitter et al., 1997; Van Hootegem, 2000). This dissertation examines this claim, as it examined the neglected impact of organisational structures on quality of working life. It is found that organisational structures influences care workers' quality of working life in nursing homes (see Chapter 7). It was shown that some structures are beneficial for care workers' quality of working life, while others potentially lead to a lower quality of working life.

This dissertation offers theoretical contributions to the field of healthcare and nursing, by showing that including a notion of organisational structures in the NSSL concept gives novel insights on their outcomes. Up to date, the NSSL concept takes insufficient account of the organisational context in which it is realised. Chapter 2 has for instance showed that the way work is divided across work units is often not discussed in the literature on NSSL, nor included in the NSSL definition. Importantly, there is a vibrant research tradition, which combines, just like this dissertation, the field of healthcare and the field of organisation studies (Currie et al., 2012). This is exemplified by Currie et al. (2012, p. 276) who argue that insights from organisation studies and organisation studies are beneficial for healthcare and nursing studies as '*OS [organisation studies] offer (…) a more holistic and robust understanding of contemporary issues related to healthcare organisation and delivery*.' Insights from organisation studies, and work and employment studies are in this dissertation used to examine whether (and how) NSSL improves care workers' quality of working life. Therefore, this dissertation is also a response to recent calls for an interdisciplinary research focus on how quality of working life can be improved (Grote

& Guest, 2016). This dissertation contributes in three ways to the nursing and healthcare literature on the quality of working life of care workers in NSSL.

Conventional vs. normalised small-scale living. Few studies have investigated the impact of NSSL on the quality of working life of care workers. This is astonishing since numerous studies have outlined (1) working life issues in nursing homes and (see for instance: Bourdeaud'hui, Janssens & Vanderhaeghe, 2017; Bourdeaud'hui & Vanderhaeghe, 2014; Dhaini et al., 2016; Edvardsson et al., 2009; Sargent et al., 2008) (2) the impact of these issues on how care is provided in nursing homes (see for instance: Bishop et al., 2008; Burns et al., 2016). Overlooking the working life of care workers is often seen in healthcare, and is not particular to NSSL. The Triple Aim, for instance, argue that new care models need to be developed which simultanoulsy improve the patient experience of care, improve the health of populations, and reduce the per capita cost of health care (Berwick et al., 2008). In a provocative manner it could be argued that organisations using the Triple Aim only care about the performance outcomes of care organisations. NSSL is an example of a concept following the Triple Aim guidelines, since it mainly focuses on creating a normalised way of caregiving for residents as an organisational outcome. Quality of working life is neither part of the Triple Aim nor part of the NSSL concept. Bodenheimer and Sinsky (2014) therefore extended the Triple Aim concept to the Quadruple Aim concept. In the extended concept (the Quadruple Aim) it is argued that the quality of working life of care workers is a prerequisite for the other aims since '*Health care is a relationship between those who provide care and those who seek care, a relationship that can only thrive if it is symbiotic, benefiting both parties*.'.

This dissertation did an overview of the few studies on the NSSL concept and quality of working life, and showed that overall, when compared to conventional nursing homes, the concept improves the quality of working life of care workers. In the job demands-control(-support) model it is argued that employees experience high stress levels in jobs with high job demands, and thereby face an increased risk of mental and physical health problems (Karasek and Theorell, 1990). High regulation capacity (i.e. job control and social support) makes it possible for employees to deal with high job demands, and thereby make it possible to reduce the risk of stress and related health problems (Karasek and Theorell, 1990). It was found that care workers in NSSL experience higher job demands, and that only the demand 'time pressure' was lower in NSSL than in conventional nursing homes (see Chapter 4 for an explanation of this). Care workers have more job control in NSSL, this suggest that NSSL is a step in the right direction towards more active jobs and less high-strain jobs in the nursing home sector. Two quality of working life issues were outlined in NSSL nursing homes, which explained this: 'too high job demands at specific time periods' and 'experiences of social isolation'. Social isolation may cause insufficient regulation capacity to deal with high job demands. Exceeding job demands at specific time periods may make it difficult to recover from work, although the demands have been compensated with high regulation capacity. It has been discussed in chapters 4 and 5 that both issues may result in high stress levels, and subsequent negative work and health outcomes. This dissertation shows that built

environments and organisational structures of nursing homes impact employees' quality of working life, and are thus also part of the solution to solve these issues in NSSL.

Centralised operation-oriented structures vs. decentralised order-oriented structures. The manner in which tasks are divided across work units and jobs is often overlooked in the NSSL literature (see Chapter 2). This dissertation found that NSSL had different organisational structures, with some resembling the centralised operation-oriented (see cluster 5 in Chapter 6) and others the decentralised order-oriented way of organising (see clusters 1 to 3 in Chapter 6). MST (e.g. De Sitter, 1998) indicates that quality of working life is lower in operation-oriented structures than in order-oriented structures.

Adapted built environments vs. small housing projects. Some studies argue that NSSL nursing homes should be located in archetypical houses (Van Zadelhoff et al., 2011; Verbeek et al., 2010; Verbeek et al., 2012) or self-contained small houses (Loe & Moore, 2012). Other studies do not mention the built environment as a necessary condition for realising the NSSL concept (e.g. Te Boekhorst et al., 2008; Kuremyr et al., 1994). This dissertation found that in practice, NSSL was realised in small housing projects and in adapted built environments (see Chapter 8). Based on findings from work and employment studies (e.g. Ilsøe et al., 2017), it was detailed that these different building settings may explain why quality of working issues were present in some NSSL nursing homes, and not in others. The empirical data in chapter 8 confirmed this and showed that there were higher job demands (i.e. with the risk of including excessive demands), and more job isolation in the small housing project than in an adapted conventional built environment. Job control did not differ between care settings.

9.3 Policy and practical implications

Having discussed the main theoretical contributions, this section outlines the policy and practical implications. The findings of this dissertation give policy makers and practitioner insights on how the quality of working life of care workers can be improved. It also shows the importance of the broader organisation of work in nursing homes. Implications are outlined for the nursing home sector in general, for the NSSL concept, and for practices to increase quality of working life.

9.3.1 Implications for the nursing home sector

Ageing of Western countries will make it challenging to find enough care workers able and willing to work in nursing homes. The number of residents living in nursing homes is expected to rise steeply in the next decades (Comas-Herrera et al., 2007; Pacolet et al., 2014; Szweda-Lewandowska, 2011). This increase is combined with higher clinical care needs (Comas-Herrera et al., 2007; Prince et al., 2013), and more person-centred care expectations of residents and relatives (Brune, 2011). These higher (quantitative and qualitative) demands will lead to more jobs in the nursing home sector (Hussain et al.,

2012), and lead to potential labour shortages in the near future. This is especially the case when the economic revival that started after the financial crisis will continue, leading to more jobs in other sectors than the nursings home sector. The nursing home sector will then have to compete in the labour market with other employment sectors.

This last point is illustrated with the unemployment rate and the number of vacancies in Flanders. The unemployment rate decreased between 2013 and 2017 from 7.5 per cent to 7.0 per cent (Vlaamse Dienst voor Arbeidsbemiddeling en Beroepsopleiding, 2018). Moreover, the total number of vacancies in Flanders increased with 40 per cent between 2013 and 2017, from 153.739 to 258.124 (Vlaamse Dienst voor Arbeidsbemiddeling en Beroepsopleiding, 2018). The number of vacancies in healthcare increased in the same period with 57 per cent, from 6.491 to 13.210 (Vlaamse Dienst voor Arbeidsbemiddeling en Beroepsopleiding, 2018). The care sector has thus a higher demand for employees than the mean demand Flanders. The lower unemployment rate will make it difficult to find enough employees willing to work in the healthcare sector.

Studies across countries and regions have found that care workers in nursing homes have several quality of working life issues (Sargent et al. 2008; Den Besten et al., 2009; Dhaini et al., 2016; Bourdeaud'hui et al., 2017). Nursing home jobs even have a lower quality of working life, than jobs in other health care sectors (Bourdeaud'hui et al., 2017). This urges actions to address quality of working issues, as this is a part of the solution to avoid future labour shortages (Hussain et al., 2012). A higher quality of working life will namely make it possible to convince experienced care workers to remain in the sector, to attract new care workers to the sector, and to convince care workers whom left the sector to come back. Policy makers across countries have therefore launched initiatives to increase care workers' quality of working life. This is illustrated for Flanders by the Flemish Minister for Welfare, Public Health and Family who wrote in 2015 in his 'Action plan 3.0' that: '*The aim is that in 2019 the nursing home sector has a better score for quality of working life*.' (Vandeurzen & Holtzer, 2015). This aim has been reconfirmed in the concept nota on elderly care in 2017 (Vandeurzen, 2017).

This dissertation gives policy makers and practitioners insights for explaining and potentially solving quality of working life issues in nursing homes. It demonstrates the impact of NSSL and organisational structures on care workers' quality of working life. In particular, it showed that an adapted form of the NSSL concept, which takes account of a notion of organisational structures, has the potential of increasing the quality of working life of care workers. Especially, insights from Modern Sociotechnical Theory (i.e. termed 'Innovatieve Arbeidsorganisatie' in Flanders) need to be used to further improve the quality of working life. These insights are useful for policy makers and practitioners as it shows how to increase quality of working life, and thus how to partly avoid future labour shortages in the sector. Practitioners should therefore deliberately choose a specific organisational structure, and realise the consequences of this for employees. Often organisational structures are chosen unconsciously. The findings of this dissertation can help them to make a deliberate chose. Policy makers have an important

role to play in making local practitioners aware of the importance of organisational structures, as well as in supporting initiatives towards more sociotechnical and organisational designs.

9.3.2 Implications for the concept of normalised small-scale living

The findings are of interest for the definition of NSSL, and for the further diffusion of the concept. It is especially of interest for (1) practitioners in conventional nursing homes which (aim to) move to NSSL, (2) practitioners in nursing homes which already realise the NSSL concept, and (3) policymakers interested in practices able to improve care workers' quality of working life. Four implications for the concept are outlined.

First, this dissertation shows that care workers have a higher quality of working life in NSSL nursing homes than in conventional nursing homes. The findings support practitioners, with scientific evidence, that the concept they realise has major positive impacts on employees. It gives them therefore an incentive for alleviating hindrances to realise NSSL. The findings may also convince practitioners in conventional nursing homes to implement the NSSL concept, because of it benefits for the working life quality of staff. This may lead to a higher diffusion of the NSSL concept in practice. This dissertation also offers a clear evidenced-based concept to policy makers searching for practices to reduce the working life issues. Policy should further support and sustain the diffusion of NSSL.

Second, this dissertation shows the challenges of NSSL living for care workers' quality of working life. This may help practitioners to detect the quality of working life issues in their own organisation, since it brings these issues to the forefront. An example of such an issue is that there are higher emotional demands in NSSL, which are already high for care workers in nursing homes in Flanders (Bourdeaud'hui et al., 2017). Practitioners in NSSL may develop strategies to overcome these issues in their current care setting, in this dissertation some fruitful strategies are outlined. Practitioners in non-normalised large-scale nursing homes, which aim to move to NSSL may build in these strategies to avoid these quality of working life issues by using it directly at the start of the redesign process towards NSSL. It is shown in this dissertation that manners to enhance quality of working life have to be sought in the organisational structures of nursing homes.

Third, this dissertation shows that, in practice, the diffusion of NSSL has led to variation. It indicated that not all NSSL nursing homes realised the three core principles of NSSL (i.e. small living units, integrated jobs, and all basic facilities in the living unit; see chapter 6). It is worthwhile for NSSL practitioners to consider whether it is desirable to develop guidelines on variation possibilities from the core principles, i.e. to find out what the minimal requirements are for realisation of the concept.

Fourth, this dissertation shows the building blocks for NSSL nursing homes to avoid the still present quality of working life issues. It examined the large impact of organisational structures on care workers'

quality of working life. These findings may encourage practitioners in NSSL to redesign their organisational structure and/or built environment deliberately. It is outlined that practitioners should make from the start of an intervention project towards NSSL deliberate choices (i.e. pros and cons) about these structures. Policy makers should support NSSL nursing homes to further develop these building blocks, as it is shown that this concept is already one step forward in increasing the quality of working life compared to non-normalised large-scale nursing homes.

9.3.3 Implications for practices aiming to improve quality of working life

The findings of this dissertation give policy makers insights to set up initiatives which improve employees' quality of working life in general, and highlight in particular sociotechnical interventions (see also: workplace innovation; Oeij et al., 2017) as a successful practice for creating qualitative jobs.

Retirement ages are rising across Western countries (Naumann et al., 2014). This policy is amongst other reasons, driven by expected labour shortages caused by the ageing of society: there will be fewer employees at working age which are able to replace senior citizens in the labour market. It is argued that employees need a high quality of working life to be able to work till the extended retirement age (Van Hootegem, 2014). A low quality of working life namely leads to employees who become mentally and physically ill (see Chapter 2), and as a consequence leave (temporary or permanent) the labour market. This is exemplified with the study of Elovainia et al. (2005) showing that high job demands are associated with employees' thoughts to retire, except when combined with high job control.

Different countries launched programs and initiatives to monitor and improve employees' quality of working life (e.g. Bamps & Berckmans, 2005). Often, targets are set on how many quality of working life jobs have to be strived for. The aim of these programs is to make it possible for employees to work till the extended retirement age, while initiatives to monitor employees' quality of working life examine whether the targets to improve quality of working life are reached. For example, after measuring the quality of working in Flanders in 2004 it was decided in Pact 2020 that the number of high-quality jobs should increase with 0.5 per cent per year starting from 52.3, and thus leading to 60 per cent of the jobs in 2020. In 2016, 51 per cent had a high quality of working life due to an increase in work-related stress (Bourdeaud'hui et al., 2017). The target was thus not met.

Often practitioners and policy makers (stimulate to) intervene at the individual job level for increasing quality of working life, neglecting that jobs are embedded in organisations (Vermeerbergen et al., forthcoming). Employees are after change then for instance rotating between several low quality jobs, or following (e.g. mindfulness) courses to deal with high job demands. It is important to understand that many stressors of a low quality of working life at the individual job is by such interventions being unaffected. Potentially leading to new negative work and health outcomes in the near future.

Chapters 6 to 8 have shown how jobs are embedded in organisations, and how these shape the structural conditions, which create a high or low quality of working life. Policy makers and practitioners should therefore acknowledge the potential of adapting organisational structures for quality of working life. Especially organisations redesigning their structure by using insights of Modern Sociotechnical Theory should especially be supported. This can be by giving financial support to organisations making the move towards a new design, by creating leeway in the highly regulated sectors, and by building expertise (and make it publicly available) on how such a shift (i.e. the process and the outcomes) has to look like.

9.4 Limitations and future research avenues

The findings of this dissertation open avenues for fruitful further research within the field of healthcare and nursing, but also within the fields of organisation studies, and work and employment studies. These avenues are also based on the limitations of this dissertation. In the individual research papers future research avenues were sketched. In this section eleven of these and additional research directions are briefly summarised.

First, authors inspired by Modern Sociotechnical Theory have argued that organisational structures impact organisational performance (e.g. Pot et al., 2009), as MST takes organisational performance - besides quality of working life - as a redesign criterion. This dissertation did not detail the impact of NSSL and specific organisational structures within NSSL on financial performance. The same applies for quality of care and life of residents. Future research is needed which details in (NSSL) nursing homes whether different organisational structures have different outcomes for initial costs, ongoing costs, quality of care, and quality of life. Research is also needed which investigates whether the impact on these outcomes is influenced by a high or a low quality of working life. In other words, is quality of working life a mediator (or moderator) of the impact of organisational structures on residents' and organisational outcomes. The impact on residents' outcomes is especially interesting since there could be trade-offs between being resident-oriented and giving employees a high quality of working life. This was also outlined in chapter 7. Two examples further explain this. One the one hand, fulfilling residents' high demands for person-oriented care could increase residents' quality of life but could also bring about excessive job demands for care workers. On the other hand, giving residents high autonomy within their daily living and care situation could increase their quality of life. This could, however, also cause care workers to have less autonomy since they have to follow residents' living and care choses.

Second, the implementation and the impact of interventions are highly affected by the intervention process (Nielsen & Randall, 2013). This corresponds with Nytrø et al. (2000) who argue that: '*Individual, collective and management perceptions and actions in implementing any intervention (…) influence (…) the overall result of the intervention*.'. Nielsen and Randall (2013) argue that the majority of organisation studies and work and employment studies only examine the impact of interventions, and

only few evaluate the intervention process. Also this dissertation examined the impact of interventions (i.e. the impact of NSSL and organisational structures on quality of working life), without much attention for the intervention process. Future studies are needed which combine a process and an impact evaluation, and show how intervention processes are related to implemented interventions, and intervention outcomes. Future studies should thus examine whether the intervention process towards NSSL explains practice variation, and subsequent differences in quality of working life. Research is also needed which examines whether the manners in which NSSL nursing homes adapt their organisational structures, influence quality of working life.

Third, there is scope for further research on other practices than NSSL on the quality of working life of employees. This can be on new organisational forms in the elderly care, which are expected to be increasingly developed in the next decades (see also Chapter 2). The demand for person-centred care can for instance induce cooperative care organisations. Future research should examine the impact of such new forms on employees' quality of working life. Another avenue for future research is to compare the impact of similar upcoming new organisational forms on the quality of working life across employment sectors in healthcare. This can be forms of normalised ways of caregiving but also, for instance the implementation of autonomous teamwork. Also the impact on quality of working life of organisational concepts developed outside the nursing home sector but applicable to elderly care, should be investigated. An example here is the concept of continuous improvement in healthcare (Benders et al., 2017).

Fourth, elderly care is differently organised across countries (Ribbe et al., 1997) and regions (Herr & Hottenrott, 2016). Studies outlined for instance country differences in the scale of the living unit in nursing homes (Katz, 2011), the popularity and definition of the NSSL (Verbeek et al., 2009), and institutional factors like staffing levels (Harrington et al., 2012). This dissertation only collected data in nursing homes in Flanders. Future research is needed which compare variation in NSSL concept across countries, and enlightens which practices improve care workers' quality of working life. Different institutional factors may also lead to quality of working life differences for care workers, as is illustrated by higher staff levels which may lead to reduced time pressure and more social support levels for care workers. There is need for studies comparing quality of working life in nursing homes across countries. Also evaluation research of the impact of changing healthcare policy on the working life quality of care workers is recommended. Is there for instance an impact on quality of working life of the promised higher staff levels in nursing homes in Flanders (Vandeurzen, 2017)?

Fifth, this dissertation does like all other studies on quality of working life in NSSL use a comparative case study design (Vermeerbergen et al., 2017). No comparison was however outlined between NSSL homes and conventional nursing homes. It was, however, shown that NSSL nursing homes work with different organisational designs, that could potentially lead to different work and health outcomes for employees. Future research could examine whether the variance in quality of working life within

conventional and NSSL nursing homes is as large as the variance between conventional and NSSL nursing homes. This outcome could be expected because of the different organisation designs realised within NSSL nursing homes. Moreover, a pretest-posttest study of care workers' quality of working life in nursing home which move from a conventional care setting to a NSSL setting is not yet published, neither is there a pretest-posttest study on the impact of different organisational structures on quality of working life in nursing homes. This would however contribute to the literature as it holds contextual, individual and organisational characteristics constant, which may explain potential quality of working life differences. Therefore, future studies should examine care workers' quality of working life by using a pretest-posttest research design.

Sixth, since the end of the 20th century sociological studies increasingly focus on individual employees, instead of on the organisations in which these employees are working (Costea et al., 2007). Based on insights from Modern Sociotechnical Theory, this dissertation goes against this grain and examines the impact of organisational structures on quality of working life. The individual perspective was however not totally out of sight, as is exemplified in chapter 8 emphasising the importance of individuals' skills and behavior. Future research is needed to further detail the relation between organisational structures and the individuals working in the high or low quality jobs. Two examples of fruitful research are: (a) can all employees deal with the higher regulation capacity given to them in sociotechnical designs? (b) Do organisational structures set the limits in which job demands and regulation capacity can move (like MST argues), or can individuals craft their own job demands and regulation capacity outside of these limits? Like Parker et al. (2017) it is here thus recommended that '*we need to build better bridges between sociotechnical systems perspectives and the individual work design perspectives*'.

Seventh, Modern Sociotechnical Theory is a theory on production and service (i.e. order) processes within organisations (De Sitter, 1998), and has played an important role in how redesign processes take place in practice. It is argued that simply restructuring these processes is not sufficient for realising an order-oriented structure (Van Amelsvoort & Van Hootegem, 2017). A more complete theory, which builds further upon Modern Sociotechnical Theory, is needed. This theory has been termed 'Total Workplace Innovation' (Van Hootegem, 2016). It takes account of (1) how employees are assigned to jobs (see also the concept of 'Relational Coordination'; Gittell et al., 2008), (2) how employment relationships are related to organisational structures (a definition of employment relationships can be found here: Van Hootegem, 2000, pp. 52-67), and (3) what a transition towards a modern sociotechnical structure will look like. The question for this last element is to find out which change theory best fits with Modern Sociotechnical Theory or whether it is necessary to develop a new change theory. Future studies should examine what additional value Total Workplace Innovation could have for the quality of working life of employees.

Eight, organisational structures have an impact on job demands and job control in organisations (De Sitter, 1998). It was detailed here that the organisational structures in NSSL nursing homes impact the

quality of working life of care workers. Interviews with managers in nursing homes were conducted to examine what variation was present in the organisational structure in practice as well as their impact on the quality of working life of care workers. Future research is needed which measures quality of working life with other measure techniques such as observations of care jobs, employee questionnaires and interviews with care workers or focus groups. In a 'work in progress' paper, which is not included in this dissertation, this data has been collected and presented.

Ninth, technical innovation will in the next years increasingly change the way how care is given in nursing homes (Sloane et al., 2014; Pineau et al, 2003). It is argued that technical innovation is also a part of the solution for the upcoming labour shortages, as it can make personal and care tasks more efficient and effective (Pineau et al., 2003). This dissertation studied the impact of the built environment as a part of the technical aspect system (for a definition of technical aspect system, see chapter 2) on the quality of working life in the nursing homes. Future research may expand the view on technical aspect systems by including the impact on quality of working life of other aspects in the technical aspect system (e.g. robots, smart homes, electronic health monitoring and communication; Sloane et al., 2014) than the built environment.

Tenth, financial rationalisation processes are increasingly introduced across countries in the healthcare sector (Janssen et al., 2016). These can have a negative outcome for employees (such as fewer staff members per residents) but this is not always the case since care work can also be organised more efficiently. The automatisation of some tasks is an example of the latter. This dissertation detailed the way in which different organisational forms in nursing homes influence the quality of working life of care workers. In contrast to other studies (see: Burns et al., 2016; Janssen et al., 2016), this dissertation has not outlined the impact of rationalisation processes on employees and residents. Future research that outlines the impact of austerity measures on employee outcomes in more detail is needed.

Eleventh, quality of working life has often been broader defined as the definition used in this dissertation (e.g. Siegrist, 2000; Van Hootegem et al., 2014; Morgeson & Humphrey, 2006; Bakker & Demerouti, 2007). This study examined the job content of care workers in nursing homes, and related it to the way how work is divided in organisations. Future studies should examine the impact of organisational structures on other quality of working life dimensions: employment conditions, physical job conditions, and industrial relations. Such research can for instance contribute organisation insights to the increasing stream of studies (e.g. Kalleberg, 2009; Kalleberg & Vallas, 2017) on precarious work and its impact on work and health outcomes.

In a Flemish newspaper a care worker mentioned: 'It is in the blood of every care worker: rowing with the oars you have got [a Dutch expression meaning: making it do with the means available to you]. But I'm afraid that we are sinking quietly'. This dissertation indicates that care workers in nursing homes have quality of working issues, which need to be resolved. Besides the humane idea that everyone

deserves a good job, a higher quality of working life is also needed for better care, better health, and lower costs (Bodenheimer & Sinsky, 2014). It is astonishing that often the working life of employees is overlooked in healthcare. This dissertation is one of the exceptions, and uses insights from organisation studies to examine how the quality of working life of care workers can be improved in nursing homes.

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SUPPLEMENTARY MATERIALS

Appendix 1: Configurations of search terms

Search term for nursing home	**AND**	**Search term for normalised small-scale home**	**AND**	**Search term for job content**
Nursing home		Group living		Demand
Retirement facility		Small-house		Control
Retirement home		Small-scale living		Job resource
Old folks home		Small-scale care		Job content
Rest home		Homelike care		Job characteristic
Elderly care		Group home		Autonomy
Convalescent home		Homelike environment		Decision authority
	+	Special care facility	+	Feedback
		Special care unit		Social support
		Small unit		Organising task
		Green house		Information
		Group dwelling		Problem solving
		Group Care		Contact possibility
		Collective care		Skill discretion
		Collective living		Complexity
		Collective dwelling		Time pressure
				Variability
				Variety
				Repetitiveness
				Repetitive
				Monotonous
				Routine
				Predictability
				Predictable
				Specialisation
				Completeness
				Complete
				Workload
				Emotional experience
				Relational coordination
				Task identity
				Stress
				Engagement
				Burnout
				Strain
				Motivation
				Turnover

Legend: (1) the plural of each search term was also used (2) UK English and US English variants were used

Appendix 2: Definitions of quality of working life subdimensions

Quality of working life subdimension	**Definition**	**Authors**
Completeness	The degree to which a job is complete, meaning that the job includes preparatory, supportive and executive tasks.	Van Hootegem et al., 2014
Complexity	The degree to which the job tasks are difficult to perform, needing sufficient alertness during the work process.	Van Hootegem et al., 2014
Emotional demands	The degree to which job aspects require sustained emotional effort because of contacts with clients.	De Jonge and Dormann, 2003
Predictability	The degree to which the nature of tasks, the time needed to conduct tasks, and the context in which to fulfill tasks is fixed in advance.	Van Hootegem et al., 2014
Qualitative work overload	The degree to which it is not possible in the job to perform the given tasks or duties.	Rose et al., 1994
Repetitiveness	The degree to which there is a high number of short-cycled tasks in a job.	Van Hootegem et al., 2014
Time pressure	The degree to which there is a high number of requirements within a limited time space.	De Jonge, 1995
Variability	The degree to which changes in the environment influence the relation between tasks and their outcome.	Van Hootegem et al., 2014
Autonomy	The degree to which a job provides control possibilities.	Van Hootegem et al., 2014
Organising tasks	The degree to which a job provides sufficient functional support from colleageaus in staff units, or support from supervisors.	Van Hootegem et al., 2014
Social support from peers	The degree to which a job provides opportunities for advice and assistance from peers.	Morgeson and Humphrey, 2006
Social support from supervisors	The degree to which a job provides opportunities for advice and assistance from supervisors.	Morgeson and Humphrey, 2006
Supply of information	The degree to which there is sufficient feedback on the results of the work, and whether there is sufficient information about the purpose of the work and the tasks.	Van Hootegem et al., 2014

Appendix 3: Quality check of quantitative studies reviewed

Studies reviewed	Critical appraisal criteria					Conclusion
	Selection bias	**Study design**	**Confounders**	**Blinding**	**Data collection method**	
Te Boekhorst et al. (2008)	Weak	Moderate	Weak	Moderate	Strong	Reviewer 1: Inclusion
	Weak	Moderate	Strong	Moderate	Strong	Reviewer 2: Inclusion
De Rooij et al. (2012)	Moderate	Moderate	Weak	Moderate	Strong	Reviewer 1: Inclusion
	Moderate	Moderate	Weak	Moderate	Strong	Reviewer 2: Inclusion
Kuremyr et al. (1994)	Weak	Moderate	Weak	Moderate	Strong	Reviewer 1: Exclusion
	Weak	Moderate	Weak	Moderate	Strong	Reviewer 2: Inclusion
						Discussion: Inclusion
Van Beek et al. (2011)	Weak	Moderate	Strong	Moderate	Strong	Reviewer 1: Inclusion
	Weak	Weak	Strong	Moderate	Strong	Reviewer 2: Exclusion
						Discussion: Inclusion
Verbeek et al. (2010)	Moderate	Moderate	Weak	Moderate	Strong	Reviewer 1: Inclusion
	Moderate	Moderate	Strong	Moderate	Strong	Reviewer 2: Inclusion
Verbeek et al. (2012)	Moderate	Moderate	Moderate	Moderate	Strong	Reviewer 1: Inclusion
	Moderate	Moderate	Strong	Moderate	Strong	Reviewer 2: Inclusion

Appendix 4: Quality check of qualitative studies reviewed

Studies Reviewed	**Critical appraisal criteria**										**Conclusion**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
Kuremyr et al. (1994)	Unclear	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Reviewer 1: Inclusion
	Unclear	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Reviewer 2: Inclusion
Loe and Moore (2012)	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Reviewer 1: Inclusion
	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Reviewer 2: Inclusion
Van Zadelhoff et al. (2011)	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Reviewer 1: Inclusion
	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Reviewer 2: Inclusion
Verbeek et al. (2012)	Unclear	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Reviewer 1: Inclusion
	Unclear	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Reviewer 2: Inclusion

Legend: The critical appraisal criteria are the following, (1) There is congruity between the stated philosophical perspective and the research methodology. (2) There is congruity between the research methodology and the research question or objectives. (3) There is congruity between the research methodology and the methods used to collect data. (4) There is congruity between the research methodology and the representation and analysis of data. (5) There is congruity between the research methodology and the interpretation of results. (6) There is a statement locating the researcher culturally or theoretically. (7) The influence of the researcher on the research, and vice versa, is addressed. (8) Participants, and their voices, are adequately represented. (9) The research is ethical according to current criteria or, for recent studies, there is evidence of ethical approval by an appropriate body. (10) Conclusions drawn in the research report do appear to flow from the analysis, or interpretation, of the data.

Appendix 5: Dutch translation of chapter 5

Kwaliteit van arbeid in kleinschalige genormaliseerde woonzorgcentra

Abstract

De voorbije jaren schakelden diverse Vlaamse woonzorgcentra over naar een kleinschalige en genormaliseerde woonvorm. Heeft die verandering ook geleid tot een verbetering van de kwaliteit van de arbeid? Dit overzichtsartikel beschrijft de resultaten van vier empirische studies over de kwaliteit van arbeid in kleinschalige genormaliseerde woonzorgcentra. De bevindingen van de empirische studies tonen dat kleinschalige genormaliseerde zorg een stap in de goede richting is voor de kwaliteit van arbeid van zorgmedewerkers in woonzorgcentra. Er is echter geen garantie voor een algehele verbetering van de kwaliteit van arbeid, omdat ook knelpunten voor de kwaliteit van arbeid werden teruggevonden in de empirische studies.

Key words: kleinschalig genormaliseerd wonen, kwaliteit van arbeid, woonzorgcentra

Inleiding

> Rusthuizen [woonzorgcentra] zijn zorgfabrieken aan het worden, waar bejaarden (…) 'afgewerkt' worden en het personeel op het tandvlees zit. (D'Hoore & Renson, 2015)

De Vlaamse krant De Tijd bracht gedurende een week lang elke dag een thematisch artikel uit over de toekomst van woonzorgcentra in Vlaanderen. Het thematisch artikel over de organisatie van zorg, waaruit bovenstaand citaat is geplukt, stelt een somber beeld voor. Woonzorgcentra worden, zo wordt gesteld, door de voortschrijdende vergrijzing, ontgroening en besparingen in de zorgsector almaar meer organisaties waarbij gepassioneerde medewerkers werken in slopende jobs.

Bovenstaand citaat is mede gebaseerd op onderzoek van de Sociaal-Economische Raad van Vlaanderen (SERV). Zorgmedewerkers in woonzorgcentra kampen met een lage kwaliteit van arbeid. Het probleem lijkt te zijn dat zorgmedewerkers te weinig regelmogelijkheden hebben om te voldoen aan de hoge werkeisen (Bourdeaud'hui & Vanderhaeghe, 2012). Regelmogelijkheden zijn de controlemogelijkheden van werknemers over hun taken of hun gedrag gedurende het uitvoeren van hun job, evenals de sociale ondersteuningsmogelijkheden van collega's en leidinggevenden (Karasek & Theorell, 1990). Een hoog risico op stress en daardoor lage werkmotivatie en aanzienlijk risico op een burn-out zijn enkele concrete gevolgen van dit onevenwicht tussen werkeisen en regelmogelijkheden (Clegg, 2001; Kirkcaldy & Martin, 2000). In het kader van enerzijds de toekomstige vergrijzing en de daaraan verbonden stijging

van het aantal ouderen en anderzijds de reeds bestaande tekorten op de arbeidsmarkt in de zorgsector, is inzetten op de kwaliteit van arbeid van zorgmedewerkers gewenst.

In de jaren 1980 werden in Vlaanderen, als reactie op de onpersoonlijke zorgverlening in woonzorgcentra, de eerste kleinschalige genormaliseerde woonzorgcentra gebouwd (Declercq et al., 2007; Declercq, 2009). De 'reguliere' woonzorgcentra waarop kleinschalig genormaliseerd wonen een reactie is, worden volgens De Rooij et al. (2012) gekenmerkt door onder meer een medische focus op verzorging en leefgroepen met meer dan 20 bewoners. In kleinschalige genormaliseerde woonzorgcentra wordt getracht om bewoners een leven te geven dat lijkt op het leven van mensen buiten woonzorgcentra ('genormaliseerd'). Leefgroepen van beperkte omvang zijn daarvoor een noodzakelijke voorwaarde ('kleinschalig').

De laatste jaren zijn verschillende woonzorgcentra omgeschakeld naar deze kleinschalige en genormaliseerde woonvorm. Enerzijds de ondersteuning van de overheid voor nieuwe woonzorgcentra en verbouwing van bestaande woonzorgcentra en anderzijds de veranderde brandvoorschriften over het maximaal aantal bewoners per leefeenheid, stimuleerden de overgang naar kleinschalig genormaliseerd wonen in Vlaanderen. Er wordt wel beweerd (Charlot et al., 2009, p. 60; Expertisecentrum Dementie Vlaanderen, 2012) dat deze woonvorm beter is voor de kwaliteit van arbeid van zorgmedewerkers. De vraag dringt zich op in hoeverre deze beweringen empirisch zijn te onderbouwen.

De kwaliteit van zorgjobs staat in Vlaanderen hoog op de beleidsagenda. De cijfers over de lage kwaliteit van arbeid voor zorgmedewerkers in woonzorgcentra (Bourdeaud'hui & Vanderhaeghe, 2012), zijn namelijk ook de Vlaamse regering niet ontgaan. De Vlaamse minister van Welzijn, Volksgezondheid en Gezin, Jo Vandeurzen en Vlaams zorgambassadeur Lon Holtzer stellen dat Vlaanderen moet inzetten op het inrichten van innovatieve arbeidsorganisaties in woonzorgcentra, met als doelstelling om de kwaliteit van arbeid van zorgmedewerkers te verhogen (Vandeurzen & Holzer, 2015). Dezelfde vraag dringt zich dan ook beleidsmatig op: verhoogt kleinschalig genormaliseerd wonen, als innoverende manier van wonen, de kwaliteit van zorgjobs? Deze literatuurstudie heeft als doelstelling om een overzicht te geven van de resultaten van empirische studies over de kwaliteit van arbeid in Vlaamse kleinschalige genormaliseerde woonzorgcentra.

Deze studie zal eerst een kort overzicht geven van het belang van de woonzorgsector in Vlaanderen. Vervolgens zal de kwaliteit van arbeid van zorgmedewerkers in Vlaamse woonzorgcentra worden besproken. Daarna zal de definitie van kleinschalig genormaliseerd wonen worden omschreven. In de methodologiesectie zal getoond worden hoe de meegenomen empirische studies geselecteerd zijn. Het verband tussen de kwaliteit van arbeid en kleinschalig genormaliseerd wonen zal daaropvolgend worden uiteengezet in de resultaatssectie. In de discussiesectie zal een toekomstige onderzoeks- en beleidsagenda worden voorgesteld.

Tewerkstelling in de Vlaamse woonzorgsector: een duiding van het belang van kwaliteit van arbeid

Ongeveer 69 000 ofwel één procent van de Vlaamse bevolking woonde tussen 2009 en 2013 in een woon- en zorgcentrum (Agentschap Zorg en Gezondheid, 2015a). In 2012 waren 42.358 werknemers met een contract van onbepaalde duur tewerkgesteld in de Vlaamse woonzorgsector (Agentschap Zorg en Gezondheid, 2015b). Door de vergrijzing van de Vlaamse bevolking wordt verwacht dat het aantal bewoners en dus de vraag naar zorgmedewerkers in woonzorgcentra zal toenemen (Van den Bosch et al., 2011). Zo groeide tussen 2009 en 2014 reeds het aantal bedden in rust- en verzorgingstehuizen in Vlaanderen met 6.472 plaatsen, dit komt neer op een procentuele aangroei van ongeveer 10% (Agentschap Zorg en Gezondheid, 2015c). De Vlaamse Regering besliste verder dat er tegen 2018 8.413 nieuwe plaatsen in woonzorgcentra mogen bijkomen (Vandeurzen, 2015). Een probleem om aan deze stijgende vraag te voldoen is dat de vacatures van verschillende zorgberoepen moeilijk zijn in te vullen. Tot deze 'knelpuntberoepen' behoren verpleegkundigen, logistiek leidinggevenden, verzorgenden en kinesitherapeuten (fysiotherapeuten) (Vlaamse Dienst voor Arbeidsbemiddeling en Beroepsopleiding, 2015). Voor verpleegkundigen bestaan er zelfs langdurige arbeidstekorten. De stijgende vraag naar zorgmedewerkers zou de reeds bestaande arbeidstekorten kunnen vergroten.

Wel past een nuancering. Tot nu toe blijkt immers dat het absoluut aantal ouderen groeit in woonzorgcentra, maar dat de vraag naar huisvesting in een woonzorgcentrum niet evenredig stijgt met het aantal ouderen in de hele Vlaamse bevolking (Agentschap Zorg en Gezondheid, 2015a). Veel minder zwaar zorgbehoevenden worden immers buiten de woonzorgcentra verzorgd, vooral thuis door mantelzorgers en/of thuisverpleging. De stijgende vraag naar zorgmedewerkers in woonzorgcentra blijkt dus deels opgevangen te worden door alternatieve woonvormen. Ook deze nuance kan echter verder worden genuanceerd. Woonzorgcentra krijgen namelijk te maken met een stijgend aantal zwaar zorgbehoevende bewoners, daar de minder zwaar zorgbehoevenden worden vervangen door zwaarder zorgbehoevenden. Dit leidt ertoe dat vraag naar zorgmedewerkers in de Vlaamse woonzorgsector waarschijnlijk toch zal toenemen.

Dit is overigens een opmerkelijk verschil met de situatie in Nederland. Terwijl in Vlaanderen de voorbije jaren duchtig gebouwd is om bestaande woonzorgcentra uit te breiden en om nieuwe woonzorgcentra op te zetten (Vandeurzen, 2015; Vlaams Infrastructuurfonds voor Persoonsgebonden Aangelegenheden, 2013), gaat Nederland een andere richting uit. In Nederland is de capaciteit van woonzorgcentra juist stevig gereduceerd en wordt fors ingezet op thuiszorg en mantelzorg (van Rijn, 2014; 2015). Vlaanderen volgt wel langzaamaan de richting van Nederland. Zo zijn bijvoorbeeld de subsidies om nieuwbouwen te faciliteren teruggeschroefd in 2015 en ook minister Vandeurzen (2015) maakt van onder meer mantelzorg een speerpunt in zijn beleid.

Naast het verminderen van het relatief aantal bewoners door alternatieve woonvormen kan het verbeteren van de kwaliteit van arbeid in woonzorgcentra een oplossing zijn voor (toekomstige)

personeelstekorten. Dit kan namelijk leiden tot een verbeterde kwantitatieve personeelsbezetting waarbij uitstroom van personeel wordt verkleind, en instroom en retentie van personeel worden vergroot. In 2012 verliet bijvoorbeeld 7,5% van de medewerkers in Vlaanderen met een contract van onbepaalde duur vrijwillig het woonzorgcentrum waarin ze werkten (Agentschap Zorg en Gezondheid, 2015b). Wanneer hieraan wordt toegevoegd dat slechts 30% van de uittreders opnieuw gaat werken in een woonzorgcentrum (Albertijn & Devrieze, 2009) kan men al snel een groot arbeidspotentieel detecteren om de bestaande en toekomstige arbeidstekorten op te vangen.

Kwaliteit van arbeid: een focus op de arbeidsinhoud van zorgjobs

Karasek (1979), De Sitter et al. (1997) en Van Hootegem et al. (2014) stellen dat de arbeidsinhoud van jobs cruciaal is voor de psychische en fysieke gezondheid van werknemers: werknemers hebben voldoende regelmogelijkheden nodig om te voldoen aan hun werkeisen. Werkeisen zijn volgens Karasek (1979) de psychologische eisen die inherent zijn aan het vervullen van een bepaalde job. Regelmogelijkheden zijn tweeledig. Er zijn de controlemogelijkheden van werknemers over hun taken of hun gedrag gedurende het uitvoeren van hun job (Karasek, 1979). En er zijn de sociale ondersteuningsmogelijkheden van collega's en leidinggevenden (Karasek & Theorell, 1990). Indien werknemers te weinig regelmogelijkheden hebben voor hun werkeisen, wordt het risico op stress verhoogd met mogelijke negatieve gevolgen voor de mentale en fysieke gezondheid van werknemers. Een lage werkmotivatie (Mauno et al., 2007) en een hoog verloop (Chiu et al., 2009) zijn enkele concrete gevolgen van zulk onevenwicht tussen werkeisen en regelmogelijkheden. Kortom, de focus van deze studie op de arbeidsinhoud van zorgmedewerkers als indicator voor de kwaliteit van arbeid is theoretisch ingegeven, daar arbeidsinhoud in de literatuur sterk verbonden is met de psychische en fysieke gezondheid van zorgmedewerkers.

De Sociaal-Economische Raad van Vlaanderen (SERV) verricht om de drie jaar een bevraging naar de kwaliteit van arbeid van werknemers. Bovenstaand model over werkeisen en regelmogelijkheden wordt in deze bevraging expliciet meegenomen als theoretisch kader. De data van de SERV van 2013 laten toe om per economische activiteit een opsplitsing te maken. Op basis van deze data tonen tabellen 1 en 2 jobs met een problematische kwaliteit van arbeid. Problematisch wordt gedefinieerd op basis van kengetallen. Voor een methodologische uitweiding over hoe kengetallen worden berekend verwijzen we naar de methodologische nota van de Vlaamse Werkbaarheidsmonitor (Bourdeaud'hui & Vanderhaeghe, 2013a). Op vier van de vijf meegenomen condities scoren werknemers in woonzorgcentra problematischer dan werknemers in de totale gezondheids- en welzijnssector. Dit toont daarom ook de maatschappelijke relevantie aan van onderzoek over de arbeidsinhoud van jobs in deze sector. De resultaten worden verder per tabel getoond.

Tabel 1 geeft aan dat voor 35% tot 40% van de medewerkers de werkeisen problematisch zijn voor werkdruk, emotionele belasting en taakvariatie. De resultaten voor regelmogelijkheden zijn iets

positiever, maar zijn nog steeds problematisch. De autonomie van medewerkers is voor 32% problematisch te laag en de sociale ondersteuning van leidinggevende is voor 16% van de medewerkers te laag. Daarnaast kan uit tabel 1 worden opgemaakt dat ongeveer 10% meer werknemers in woonzorgcentra een problematische score voor werkdruk, taakvariatie en autonomie ervaren, vergeleken met werknemers in de totale gezondheids-en welzijnszorg. Het grootste verschil schuilt in taakvariatie.

We dienen op te merken dat de scores worden berekend per dimensie en absoluut zijn, d.w.z. niet de verhouding regelmogelijkheden en werkeisen wordt onderzocht. Hoewel de balans tussen werkeisen en regelmogelijkheden daardoor niet rechtstreeks kan worden afgeleid uit onderstaande tabel, kan wel worden opgemaakt dat veel zorgmedewerkers in woonzorgcentra de arbeidsinhoud als problematisch ervaren vanwege hoge werkeisen of relatief geringe regelmogelijkheden (in vergelijking met andere zorgsectoren). Deze problemen doen zich overigens ook voor in de rest van de Vlaamse werknemerspopulatie (Bourdeaud'hui & Vanderhaeghe, 2013b).

Tabel 1. Percentueel aantal medewerkers met een problematische arbeidsinhoud in Vlaamse woonzorgcentra en in de totale Vlaamse gezondheids- en welzijnssector

Arbeidsinhouds-kenmerk	**Woonzorgsector (n= 473)**	**Totale gezondheids- en welzijnssector (n= 2.646)**
Werkdruk	40	30
Emotionele belasting	35	35
Taakvariatie	35	23
Autonomie	32	23.5
Ondersteuning van leidinggevende	16	13

Bron: bewerking van Bourdeaud'hui & Vanderhaeghe (2013b; 2014); de percentages werden apart berekend voor de woonzorgsector en de totale gezondheids- en welzijnssector.

Tabel 2 toont dat medewerkers in woonzorgcentra meer werkstress ondervinden dan in andere zorg- en welzijnssectoren (35,3% t.o.v. 29,7% in de totale sector). Indien we het job demands-control(-support) model volgen kan deze problematischere score voor stress verklaard worden op basis van de boven geschetste problematische scores voor regelmogelijkheden en werkeisen (Karasek, 1979). Deze hogere score voor stress kan zo ook de verschillen in motivatieproblemen, leermogelijkheden en problemen in de werk-privébalans verklaren. We dienen wel te stellen dat deze geschetste relaties 'onder voorbehoud' dienen te worden geïnterpreteerd, daar de regelmogelijkheden niet relatief tegenover de werkeisen kunnen worden afgezet. Ondanks deze problemen zien we toch dat veel zorgmedewerkers in woonzorgcentra een inherente zorgattitude hebben: ondanks de bestaande arbeidsinhoudsrisico's willen zorgmedewerkers hoogstaande kwalitatieve zorg blijven aanbieden. Vaak botsen ze echter op grenzen in hun taakpakket, ze hebben niet de verantwoordelijkheid of hun job bestaat niet uit alle noodzakelijke taken om hun zorgpassie uit te leven (The, 2004). Dit sluit aan bij de bevindingen van Bourdeaud'hui

en Vanderhaeghe (2014) die vinden dat een hoog aantal medewerkers (40%) stelt dat ze enkel kunnen werken tot hun 65ste als hun werk wordt aangepast.

Tabel 2. Percentueel aantal medewerkers per sector met werkstress, motivatieproblemen, problemen voor de werk-privébalans en onvoldoende leermogelijkheden in de Vlaamse zorg- en welzijnssector in 2013

	Werkstress	**Motivatieproblemen**	**Onvoldoende leermogelijkheden**	**Problemen in de werk-privébalans**
Ziekenhuizen (n= 1.029)	33	11	13	9
Woonzorgcentra (n= 473)	35	14	21	10
Gezins-en bejaardenhulp (n= 310)	24	13	19	6
Totaal sector gezondheids-en welzijnszorg (n= 2.646)	30	12	15	9
Totaal Vlaamse arbeidsmarkt (n= 17.214)	29	18	18	11

Bron: Bourdeaud'hui & Vanderhaeghe (2014); de percentages werden per sector berekend

Kleinschalig genormaliseerd wonen: definitie

Eerder onderzoek laat zien dat kleinschalig genormaliseerd wonen positief uitpakt voor de kwaliteit van arbeid van zorgmedewerkers (Expertisecentrum Dementie Vlaanderen, 2012; Charlot et al., 2009). Kleinschalig genormaliseerd wonen zou dus als strategie kunnen worden gezien om de kwaliteit van arbeid van zorgmedewerkers te verhogen. Kleinschalig genormaliseerd wonen is echter niet ontstaan vanuit de idee om een hogere kwaliteit van arbeid te organiseren, eerder als een reactie op het einde van de jaren 1990 op de onpersoonlijke zorg voor bewoners (Declercq et al., 2007). Deze woonvorm verschilt namelijk van andere woonzorgcentra door de organisatie van zorg en huishouden (Te Boekhorst et al. 2007). Bewoners dienen zoveel als mogelijk hetzelfde leven te leiden als ze zouden leiden buiten het woonzorgcentra.

Van Audenhove et al. (2003) schetsen vijf pijlers voor kleinschalig genormaliseerd wonen in woonzorgcentra (zie ook tabel 3). Ten eerste, er moet een gewone en herkenbare leefomgeving zijn die de verbinding met de maatschappelijke, sociale en familiale context ondersteunt. De bewoner wordt dan, met zijn mogelijkheden en beperkingen, gestimuleerd om zoveel mogelijk te participeren in deze leefomgeving. Ten tweede, persoonlijke zorg moet worden aangeboden op maat en op de behoefte van de bewoner. Ten derde, naast medische zorgen moet ook aandacht worden geschonken aan de kwaliteit van leven van de bewoner. Dit houdt onder meer in dat zowel de sociale en psychologische gezondheid van bewoners wordt gestimuleerd. Ten vierde, de zorg en de aangeboden diensten worden gebaseerd op de dagelijkse activiteiten en omgang tussen bewoners onderling en bewoners en zorgmedewerkers. Zorgmedewerkers en bewoners zullen huishoudelijke taken verrichten. Ten vijfde, bewoners worden

zoveel mogelijk ondersteund om controle te nemen over hun leven, zodat kwaliteit van leven van bewoners hoger is . De organisatie van deze vijf pijlers kan, volgens Van Audenhove et al. (2003), het beste worden bereikt in kleine leefeenheden. Kleinschaligheid wordt bepaald door het aantal bewoners dat is gegroepeerd in leefeenheden (Van Audenhove et al., 2003) of het aantal medewerkers per leefeenheid (Te Boekhorst et al., 2007). Kortom, een hogere kwaliteit van leven is het doel, terwijl kleinschaligheid als praktische voorwaarde wordt gezien voor het bereiken van een hogere kwaliteit van leven.

Tabel 3. Kenmerken van kleinschalige genormaliseerde woonzorgcentra

1	Herkenbare leefomgeving
2	Persoonlijke zorg op maat
3	Kwaliteit van leven naast medisch model van zorg
4	Zorg op basis van dagelijkse activiteiten en omgang
5	Bewoners nemen controle over hun leven
6[a]	Kleine units

[a] Voor een praktische uitwerking van de bovenstaande vijf kenmerken dienen volgens Van Audenhove et al. (2003) woonzorgcentra kleine leefeenheden te hebben.

Bron: Van Audenhove et al. (2003)

Wegens financiële en wetgevende problemen werd kleinschalig genormaliseerd wonen in Vlaanderen eerst niet zo'n groot succes als in Nederland (Declercq et al., 2009). Internationaal zien we dat deze woonvorm in verschillende landen ingang heeft gevonden. We verwijzen hierbij bijvoorbeeld naar 'Wohngruppen' in Duitsland (Dettbarn-Reggentin, 2005) en naar 'Green Houses' of 'Eden Houses' in de Verenigde Staten (Rabig et al., 2006). Het aantal woonzorgcentra dat kleinschalig en genormaliseerd werkt lijkt in Vlaanderen echter nog vrij gering, al ontbreken concrete data. Het netwerk kleinschalig genormaliseerd wonen omvat bijvoorbeeld 15 woonzorgcentra als actieve leden, terwijl er per 1 september 2016 791 erkende zoonzorgcentra waren in Vlaanderen en het hoofdstedelijk gewest. Het lijkt wel dat vanaf 2009 almaar meer woonzorgcentra kleinschalig en genormaliseerd werden. Hier zijn twee redenen voor. Enerzijds zijn sinds 2009 23 nieuwe woonzorgcentra en 6.429 nieuwe woongelegenheden gecreëerd (Agentschap Zorg en Gezondheid, 2015d). Dit gebeurde onder meer dankzij financiële steun van het Vlaams Infrastructuurfonds voor Persoonsgebonden Aangelegenheden (VIPA). We dienen wel te erkennen dat sinds januari 2014 deze steun is teruggetrokken (Vlaams Infrastructuurfonds voor Persoonsgebonden Aangelegenheden, 2013). Tabel 4 toont voor 2013 het totaal aantal erkende woonzorgcentra in Vlaanderen, opgedeeld per provincie. Eveneens wordt het aantal woonzorgcentra in onderzoek en het aantal reeds geplande woonzorgcentra getoond. We merken op dat veel woonzorgcentra gepland staan. Deze overheidssteun voor het installeren van een nieuwe architectuur is belangrijk, daar het zo mogelijk wordt voor woonzorgcentra om een nieuw woonconcept,

zoals kleinschalig genormaliseerd wonen, toe te passen. Anderzijds werd door de Vlaamse Regering in 2011 een besluit inzake brandveiligheid uitgevaardigd, waarin staat dat woonzorgcentra moeten bestaan uit deelcompartimenten met 's nachts maximaal 20 bewoners (Besluit van de Vlaamse Regering tot vaststelling van de specifieke brandveiligheidsnormen, 2011, Art. 2.1.). Dit aantal bewoners beperkt, net zoals in het concept kleinschalig genormaliseerd wonen, het maximaal aantal inwoners per leefeenheid.

Tabel 4. Totaal aantal woonzorgcentra in Vlaanderen

Provincie	**Erkende Woonzorgcentra**	**Aantal woonzorgcentra in onderzoek**	**Aantal geplande woonzorgcentra**	**Totaal**
Antwerpen	199	3	45	247
Limburg	82	3	35	120
Oost-Vlaanderen	190	1	34	225
Vlaams-Brabant	124	0	34	158
West-Vlaanderen	160	1	33	194
Vlaanderen	755	8	181	944

Bron: Agentschap Zorg & Gezondheid (2013)

De vijf richtlijnen, zoals neergeschreven door Van Audenhove et al. (2003), voor genormaliseerd wonen, zijn allen opgesteld vanuit het oogpunt van bewoners. In deze richtlijnen is het standpunt van zorgmedewerkers echter niet rechtstreeks meegenomen. Niettemin lijkt de relatie tussen kleinschalig genormaliseerd wonen en werkeisen op het eerste gezicht duidelijk. Doordat individuele zorgmedewerkers zelf instaan voor de zorg (d.w.z. medische en huishoudelijke zorg) voor bewoners in een kleine leefgroep, krijgen deze zorgmedewerkers meer volledige, gevarieerde, onvoorspelbare, emotioneel moeilijke en complexe taken. Ze krijgen immers een meer afgerond takenpakket: de gehele bewoner. De relatie tussen genormaliseerd wonen en regelmogelijkheden is moeilijker. Het is immers niet omdat werknemers bijvoorbeeld volledigere taken hebben dat ze ook meer autonomie of sociale ondersteuning hebben. Deze verwachting inzake verschuivingen in werkeisen en de onwetendheid over mogelijke verschuivingen voor regelmogelijkheden brachten dit artikel teweeg, dat de vraag stelt of het implementeren van kleinschalig en genormaliseerd wonen in Vlaamse woonzorgcentra daadwerkelijk een mogelijke strategie is om de kwaliteit van arbeid te verhogen in de woonzorgsector.

Aanpak literatuuronderzoek

In de vorige paragrafen toonden we dat er in Vlaanderen problemen zijn met betrekking tot de kwaliteit van arbeid van zorgmedewerkers in woonzorgcentra. In deze studie vragen we ons door middel van een literatuuronderzoek af of kleinschalige genormaliseerde woonzorgcentra een deel van de oplossing zijn om problemen inzake kwaliteit van arbeid te verminderen voor zorgmedewerkers. We kozen voor een literatuuronderzoek omdat zo de bevindingen van verschillende empirische studies over de kwaliteit van

arbeid in kleinschalige genormaliseerde woonzorgcentra samen te brengen zijn in één bevattelijk overzicht. Dit literatuuronderzoek werd verricht via het systematisch doorzoeken van LIMO, het zoekplatform van LIBISnet-bibliotheken. We gebruikten dit zoekplatform omdat verschillende Vlaamse onderzoekscentra hun bibliotheek hebben verbonden aan dit platform, waardoor een optimale inclusie van studies over zorgmedewerkers in Vlaanderen verzekerd is. Twee bijkomende zoekstrategieën werden gehanteerd om alle mogelijke studies over de kwaliteit van arbeid in kleinschalige genormaliseerde woonzorgcentra te bekomen. Enerzijds werden de referentielijsten van geselecteerde studies onderzocht. Anderzijds werd aan twee academische experten in Vlaanderen gevraagd of ze nog meer studies kenden die opgenomen dienden te worden. Geen extra studies werden aangereikt door deze experten. Dit lijkt er op te wijzen dat deze literatuurstudies alle studies omvat over de kwaliteit van arbeid in kleinschalige genormaliseerde woonzorgcentra in Vlaanderen. We willen er eveneens op wijzen dat de auteurs van deze literatuurstudie niet verbonden zijn als auteur aan de geselecteerde studies.

Studies die via deze zoekstrategieën werden gevonden moesten aan drie selectiecriteria voldoen om meegenomen te worden in deze literatuurstudie:
(1) Studies dienden te handelen over de arbeidsinhoud van professionele zorgmedewerkers in Vlaamse woonzorgcentra.
(2) Studies dienden gebruik te maken van empirische data over de arbeidsinhoud via een kwalitatieve, kwantitatieve of mixed-method onderzoeksmethodiek.
(3) Studies dienden te handelen over de arbeidsinhoud in woonzorgcentra waar minder dan 16 bewoners per leefeenheid woonden.

Resultaten

Vier studies werden gevonden over de kwaliteit van arbeid in Vlaamse kleinschalige genormaliseerde woonzorgcentra. Twee studies maken een vergelijking tussen de arbeidsinhoud van zorgmedewerkers in kleinschalige genormaliseerde woonzorgcentra en andere woonzorgcentra, twee studies kijken enkel naar de arbeidsinhoud in kleinschalige genormaliseerde woonzorgcentra. De studies verrichten elk slechts onderzoek in bepaalde woonzorgcentra, geen enkele studie tracht een representatieve vergelijking te maken tussen kleinschalige genormaliseerde en ‘reguliere’ woonzorgcentra in Vlaanderen. Tabel 5 vat bondig de belangrijkste kenmerken van de vier studies samen. Een overzicht van de resultaten van de studies wordt weergegeven in tabel 6. De psychometrische kwaliteit van de studies werd getest door gebruik te maken van de “Qualitative Assessment and Review Instrument” (Hannes et al., 2010) en de “Quality Assessment Tool for Quantitative Studies” (Thomas et al., 2004). Enkel de studie van De Rooij et al. (2012) heeft een hoge psychometrische kwaliteit. Dit wordt verklaard door de beleidsmatige insteek van de drie andere studies.

Tabel 5. Beschrijving van studies over kwaliteit van arbeid in kleinschalig genormaliseerde woonzorgcentra in Vlaanderen

Auteurs	**Publicatiejaar**	**Aantal onderzochte zorgmedewerkers**	**Methodologie**	**Vergelijking tussen settings**
Van Audenhove et al.	2003	39	Kwantitatief en kwalitatief	Nee
Declercq et al. [a]	2007; 2009b	89	Kwantitatief	Ja
Spruytte et al.	2010	6	Kwalitatief	Nee
de Rooij et al.	2012	48	Kwantitatief	Ja

[a] We refereren zowel naar het rapport van Declerq et al. (2007) als naar het artikel van Declercq et al. (2009) in het Tijdschrift "Denkbeeld: Tijdschrift voor Psychogeriatrie", doordat beide gebruik maken van dezelfde data.

Van Audenhove et al. (2003) en Spruytte et al. (2010) tonen dat zorgmedewerkers in kleinschalige genormaliseerde woonzorgcentra hoge werkeisen ondervinden, maar ook veel regelmogelijkheden hebben om aan deze werkeisen te voldoen. Medewerkers hebben een gevarieerd en complex takenpakket dat bestaat uit zorgende, huishoudelijke en administratieve taken. De emotionele belasting wordt daarnaast, door de hechte band ontstaan in kleinschaligheid, zeer groot als een bewoner ziek wordt, sterft of moet verhuizen. Medewerkers moeten ook hard werken en ondervinden een hoge werkdruk, vooral tijdens dienstwisselingen. Deze hoge werkeisen worden gecompenseerd door enerzijds veel autonomie en verantwoordelijkheden. Anderzijds zorgt de kleinschaligheid van de leefeenheden ervoor dat medewerkers elkaar goed kennen, waardoor de collegiale ondersteuning groot is. De studies nuanceren deze bevindingen met twee kritische punten. Ten eerste, door de kleinschaligheid werken medewerkers vaak alleen, waardoor de collegiale ondersteuning moeilijk blijkt te zijn. Zorgmedewerkers moeten vaak alleen beslissingen nemen, zonder feedback te krijgen van collega's. Het inroepen van tijdelijke ondersteuning verloopt vaak ook moeizaam. Ten tweede, de balans tussen regelmogelijkheden en werkeisen kan snel overschakelen in het voordeel van werkeisen. Bijvoorbeeld, de werkdruk kan op sommige momenten zeer groot worden of werknemers kunnen 'overbetrokken' geraken bij hun werk bij sterfte van een bewoner.

De twee bovenvermelde studies maken, mits enige nuance, gewag van een balans tussen werkeisen en regelmogelijkheden in kleinschalige genormaliseerde woonzorgcentra. De studies van Declercq et al. (2007; 2009) onderzoeken of er ook daadwerkelijk meer een balans is tussen werkeisen en regelmogelijkheden in vergelijking met andere woonvormen. We dienen hierbij steeds op te merken dat meer werkeisen niet per se slecht zijn, mits ze samengaan met meer regelmogelijkheden (Karasek, 1979).

Declercq et al. (2007; 2009) vinden gemengde resultaten voor de verschillen in werkeisen tussen kleinschalige genormaliseerde woonzorgcentra en andere woonzorgcentra. Sommige dimensies van werkeisen lijken lager te zijn terwijl andere deeldimensies hoger lijken te zijn in kleinschalige

genormaliseerde woonzorgcentra. Enerzijds ligt in kleinschalige genormaliseerde woonzorgcentra de kwantitatieve tijdsdruk lager (cfr. minder hoeveelheid werk in zelfde tijdsperiode) en de kwalitatieve werkdruk hoger (cfr. hogere moeilijkheidsgraad van werk) en moeten werknemers minder wachten op andere medewerkers of problemen oplossen die veroorzaakt zijn door hun collega's. Daarnaast is het gebruikte zorgmateriaal van een hogere kwaliteit en hebben ze minder te maken met veeleisende, terminale of agressieve bewoners. Anderzijds verhult de onafhankelijkheid van collega's hogere werkeisen, medewerkers hebben een gevarieerder, onvoorspelbaarder en breder takenpakket gekregen.

Declercq et al. (2007; 2009) vinden dat regelmogelijkheden hoger zijn bij kleinschalig genormaliseerd wonen. Zowel collegiale ondersteuning, ondersteuning door leidinggevenden, informatievoorziening als autonomie van medewerkers zijn hoger bij kleinschalig genormaliseerd wonen. Ondanks de problemen inzake sociale ondersteuning, zoals geschetst in de studies van Spruytte et al. (2010) en Van Audenhove et al. (2003), blijkt dat sociale ondersteuning groter is in kleinschalige genormaliseerde woonzorgcentra dan in andere woonzorgcentra. Zorgmedewerkers in kleinschalige genormaliseerde woonzorgcentra hebben zodoende meer regelmogelijkheden om om te gaan met andere en op sommige dimensies zelfs hogere werkeisen.

In overeenstemming met de bovenstaande resultaten vinden Declercq et al. (2007; 2009) dat werknemers in kleinschalige genormaliseerde woonzorgcentra meer hun zorgpassie kunnen uitleven. Ze kunnen meer maatzorg bieden aan de bewoners en volgens de medewerkers bevordert de organisatiecultuur in kleinschalige genormaliseerde woonzorgcentra ook meer het geven van deze maatzorg. Daarnaast tonen Declercq et al. (2007; 2009) dat medewerkers een lager risico hebben op stress en burn-outs. Burn-out risico wordt gemeten op basis van de deeldimensies emotionele uitputting, depersonalisatie en zelfontplooiing. Voor elk van de deeldimensies tonen Declercq et al. (2007; 2009) aan dat het beter vertoeven is in kleinschalige genormaliseerde woonzorgcentra. Deze resultaten zijn in tegenstrijd met de studie van De Rooij et al. (2012). De Rooij et al. (2012) nemen werkeisen en regelmogelijkheden niet mee, maar kijken wel naar stress en de deeldimensies van burn-out mee. In hun studie worden geen verschillen gevonden voor stress, depersonalisatie en zelfontplooiing. Emotionele uitputting blijkt dan weer hoger te zijn bij zorgmedewerkers in kleinschalige genormaliseerde woonzorgcentra.

Tabel 6. Kleinschalig genormaliseerd wonen en werkbaarheid van jobs in Vlaanderen

Dimensie werkbaarheid van jobs	**Vergelijking kleinschalige genormaliseerde woonzorgcentra met klassieke woonzorgcentra**
Werkeisen	
Kwantitatieve werkdruk	Lager
Kwalitatieve werkdruk	Hoger
Emotionele belasting	/
Taakvariatie	Hoger
Regelmogelijkheden	
Autonomie	hoger
Sociale ondersteuning van collega's en leidinggevenden	hoger
Informatievoorziening	hoger
Gevolgen	
• Maatwerk	hoger
• Burn-out	
○ Emotionele uitputting	tegenstrijdige resultaten
○ Depersonalisatie	tegenstrijdige resultaten
○ Zelfontplooiing	tegenstrijdige resultaten
• Stress	tegenstrijdige resultaten

Discussie

In de vorige paragraaf werden de resultaten van vier studies over de arbeidsinhoud in kleinschalige genormaliseerde woonzorgcentra beschreven. Wanneer de resultaten van de vier studies naast elkaar worden gelegd, merken we dat er eensluidende conclusies over gewijzigde werkeisen en stijgende regelmogelijkheden gevonden werden. Namelijk,

- een lagere kwantitatieve werkdruk;
- een hogere taakvariatie;
- een hogere kwalitatieve werkdruk;
- meer autonomie;
- meer sociale ondersteuning, en
- een betere informatievoorziening

werden vastgesteld. Kortom, kleinschalig genormaliseerd wonen lijkt een stap in de goede richting voor de kwaliteit van arbeid in woonzorgcentra.

Er blijken echter ook knelpunten te bestaan, namelijk

- geïsoleerde werkplekken, en
- een te hoge werkintensiteit op specifieke tijdstippen.

Er was geen eenduidigheid over het risico op stress en burn-out (De Rooij et al., 2012; Declercq et al., 2007; 2009).

Terwijl voor de geschetste knelpunten remedies nodig zijn, is nader onderzoek vereist om de tegenstrijdige resultaten te begrijpen. Welke factoren verklaren dat in de ene studie een hoger risico op burn-out wordt gevonden, en in een andere studie juist een lager? Speelt het ontwerp van de banen hier

een rol, of eerder psychologische kenmerken van de zorgverleners? Voor de knelpunten is het onderzoek eerder ontwerp-gericht van aard: welke maatregelen kan men nemen, en onder welke condities zijn deze doeltreffend? Specifiek kan men denken aan de vorming van zorgteams die verantwoordelijk zijn voor meerdere bewonersunits. Dat maakt het gemakkelijk om elkaar te helpen wanneer nodig, en kan tegelijkertijd ook een remedie zijn voor het geïsoleerde werken. Inzichten uit de Moderne Sociotechniek (Benders & Missiaen, 2013, hoofdstukken 3 en 5; Corvers & Van Hootegem, 2013, hoofdstukken 6 tot 8; Offereins & ten Have, 2016) kunnen nuttig zijn om woonzorgcentra te ontwerpen waarbinnen de zorgteams zo autonoom mogelijk kunnen functioneren en hun bewonersunits bestieren. Een open vraag is hier nog het verband met de architectuur: de inrichting van gebouwen bepaalt in belangrijke mate de omvang van de bewonersunits en de daar aanwezige faciliteiten, en zodoende de aard en omvang van de te verrichten werkzaamheden. Verder rijst de vraag hoe de kwaliteit van de arbeid zich verhoudt tot de kwaliteit van de zorg c.q. kwaliteit van leven in woonzorgcentra? Dit betreft niet alleen de mogelijkheden om, om te gaan met de werkdruk, maar ook het effect van geïsoleerd werken: is dat beter voor de bewoner omdat de zorgverlener nu voor sociaal contact primair op de bewoners is aangewezen, of juist slechter vanwege minder intercollegiale contacten?

Hoewel de bevindingen uit de diverse studies voor een groot deel eenduidig waren, blijken er dus toch nog open vragen over werken in kleinschalig genormaliseerde woonzorgcentra.

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Appendix 6: Case organisation characteristics in chapter 7

Home characteristics / Case ID	Total number of residents in 2015[*1 *2]	Number of residents with cognitive health problems 2015[*1]	Total number of employees in 2015[*3]	Year when small-scale living is implemented	Type of home
1	108	56	117	2012	Not-for-profit
2	124	112	165	2008	Not-for-profit
3	/	/	57	2015	Not-for-profit
4	82	55	82	2004	Not-for-profit
5	95	63	/	2011	Not-for-profit
6	107	90	/	2007	Not-for-profit
7	73	37	/	2011	Not-for-profit
8	86	61	108	2005	Not-for-profit
9	165	/	/	2012	Public
10	/	/	/	/	Public
11	138	75	/	2007	Not-for-profit
12	79	51	118	2011	Not-for-profit
13	197	96	/	2014	Not-for-profit
14	75	53	/	2001	Public
15	113	97	150	1985	Not-for-profit
16	94	36	134	2015	Not-for-profit
17	159	101	/	2010	Not-for-profit
18	110	58	113	2012	Not-for-profit
19	106	76	/	2013	Not-for-profit
20	48	47	45	1986	Not-for-profit

Legend: [*1] Flemish Agency for Health and Innovation; [*2] the dashes '/' refer to the fact that this data was not publicly available in governmental databases; [*3] National Bank of Belgium

Appendix 7. Scale means and standard deviations of quality of working life items per building

Aggregate QWL dimensions	**QWL sub dimensions**	**QWL items**	**M Adapted building (SD)**	**M Small houses (SD)**	**M Adapted building (SD) - M Small houses (SD)**	**F (p-value)**
Job demands	Repetitiveness	My work is monotonous	1.68 (0.91)	1.47 (0.51)	0,21	3.16 (>0.10)
		My job requires me to repeat the same tasks.	2.94 (1.37)	2.26 (1.19)	0,68	1.31 (<0.05)
	Complexity	I need to think intensively in my job nearly all the time.	3.79 (0.91)	4.05 (0.85)	-0,26	1.16 (>0.10)
		I must remember a lot of information during a long time.	3.97 (0.95)	4.00 (0.82)	-0,03	1.37 (>0.10)
		I must pay a lot of attention in my job nearly all the time.	4.37 (0.81)	4.79 (0.42)	-0,42	3.72 (<0.01)
		I need to look at different things at the same time in my job.	4.43 (0.82)	4.79 (0.42)	-0,36	3.78 (<0.05)
	Variability	I need to adapt my tasks to changing circumstances nearly all the time.	3.79 (0.91)	4.05 (0.85)	-0,26	1.16 (>0.10)
		I do my work often in different locations.	2.51 (1.44)	3.00 (1.29)	-0,49	1.25 (>0.10)
		My working method is always the same.	3.38 (1.05)	2.16 (0.76)	1,22	1.87 (<0.01)
		The sequence of my tasks changes nearly all the time.	3.56 (0.93)	3.95 (0.62)	-0,39	2.23 (<0.05)
		In my job I am confronted with continuously changing: people.	2.87 (1.18)	2.79 (1.27)	0,08	1.17 (>0.10)
		In my job I am confronted with continuously changing: colleagues.	3.00 (1.28)	3.21 (1.13)	-0,21	1.27 (>0.10)
		I regularly perform the job of my colleague or colleagues and vice-versa.	2.00 (1.11)	2.63 (1.07)	-0,63	1.09 (<0.01)
	Completeness	Next to the execution of my work, I am also responsible for the preparation of my work.	3.97 (0.92)	4.21 (0.54)	-0,24	2.97 (>0.10)
		I myself take care of the repair or replacement of machines or means I work with when broken or out of order.	2.53 (1.11)	2.32 (1.20)	0,21	1.18 (>0.10)
		I myself judge the quality of my work.	3.14 (1.12)	3.74 (0.99)	-0,6	1.27 (<0.01)
		I myself must correct the mistakes in my work.	3.57 (0.92)	3.95 (0.85)	-0,38	1.17 (<0.10)

		I myself collect the material or information needed for my work.	3.29 (1.15)	3.53 (1.02)	-0,24	1.28 (<0.05)
		I myself make my own work schedule.	3.26 (1.12)	3.79 (1.03)	-0,53	1.18 (>0.10)
	Predictability	I can do my job mostly on routine.	3.17 (1.20)	2.37 (0.96)	0,8	1.58 (<0.01)
		The solutions to problems that arise during work are often hard to find.	2.91 (1.07)	2.69 (1.00)	0,22	1.13 (>0.10)
		I can judge well in advance how much time I need to do my work.	2.80 (1.21)	2.84 (1.17)	-0,04	1.07 (>0.10)
		I can predict how my next working day will be.	2.03 (1.04)	2.26 (1.15)	-0,23	1.21 (>0.10)
	Emotional demands	In my work I have to be prepared for dangerous situations.	3.47 (1.11)	3.74 (0.93)	-0,27	1.41 (>0.10)
		I have to work with aggressive clients/patients/customers.	3.97 (0.97)	4.22 (0.81)	-0,25	1.44 (>0.10)
		In my job I am confronted, with death, illness or other human suffering.	4.58 (0.56)	4.58 (0.51)	0	1.22 (>0.10)
	Qualitative work overload	I experience unreasonable responsibilities in my job.	2.76 (0.90)	2.78 (0.94)	-0,02	1.09 (>0.10)
		I find the responsibilities of my job unreasonable.	2.97 (0.77)	3.06 (1.06)	-0,09	1.88 (>0.10)
		My job has aspects that are difficult to achieve.	3.09 (0.95)	3.00 (0.97)	0,09	1.05 (>0.10)
		My job has aspects that are too burdensome.	2.33 (0.78)	2.72 (1.02)	-0,39	1.71 (<0.10)
	Time pressure	I have to work under the pressure of time.	3.33 (0.76)	3.08 (1.03)	0,25	1.86 (>0.10)
		I have to work very hard.	3.82 (0.98)	3.21 (1.18)	0,61	1.45 (<0.01)
		In general I have enough time to get all my work done.	3.12 (0.91)	3.73 (0.88)	-0,61	1.51 (<0.05)
		Doing a good job is at risk as I am too much busy with administrative tasks.	2.94 (1.14)	3.21 (0.98)	-0,27	1.37 (>0.10)
Job controls	Organising tasks	I have an influence on the decisions of my department.	3.49 (0.95)	3.79 (0.63)	-0,30	2.27 (<0.10)
		When I have problems in my work, I can ask my colleagues from other departments for help.	3.34 (1.14)	3.79 (0.78)	-0,45	2.08 (<0.05)
		I discuss with others how tasks are divided among colleagues.	3.23 (1.24)	3.32 (0.89)	-0,09	1.96 (>0.10)

		I am also partly responsible for the organisation of work in our team or department.	3.53 (1.24)	4.00 (0.47)	-0,47	6.88 (<0.01)
		We regularly discuss the results from our work in order to learn and improve.	4.00 (0.85)	3.95 (0.71)	0,05	1.46 (>0.10)
	Job autonomy	I myself can decide how to do my work.	3.49 (1.15)	3.63 (0.90)	-0,14	1.64 (>0.10)
		I myself can determine the sequence/order of my tasks.	3.54 (1.15)	3.74 (0.87)	-0,2	1.73 (>0.10)
		I myself can decide when to do a task.	3.26 (1.22)	3.32 (0.89)	-0,06	1.90 (>0.10)
		I can easily leave my workplace for a while.	2.14 (1.26)	2.32 (1.34)	-0,18	1.12 (>0.10)
		If I find it necessary, I can interrupt my work.	2.26 (1.17)	2.42 (1.35)	-0,16	1.32 (>0.10)
		I myself can arrange my work speed.	3.37 (1.09)	3.21 (0.98)	0,16	1.24 (>0.10)
		If necessary, I can postpone or advance the deadline when something has to be finished.	3.09 (1.29)	3.11 (1.05)	-0,02	1.51 (>0.10)
		I can choose my own working method.	3.41 (1.23)	3.37 (0.96)	0,04	1.67 (>0.10)
	Supply of information	I receive sufficient information from my boss how good my product or service is.	3.31 (0.99)	3.05 (1.08)	0,26	1.18 (>0.10)
		I receive sufficient information from my colleagues how good my product or service is.	3.40 (0.88)	3.58 (0.96)	-0,18	1.19 (>0.10)
		I receive sufficient information about the performance of my organisation.	2.86 (0.94)	2.89 (0.99)	-0,03	1.11 (>0.10)
		I receive sufficient information on the goal of my work.	2.11 (0.99)	2.21 (0.86)	-0,1	1.35 (>0.10)
		I receive sufficient information to do my work well.	2.11 (1.08)	2.42 (0.90)	-0,31	1.43 (>0.10)
		The information I need for my work arrives in time nearly all the time.	2.97 (1.12)	2.95 (1.03)	0,02	1.20 (>0.10)
		I often have to wait for the information I need.	3.09 (1.12)	3.33 (0.91)	-0,24	1.53 (>0.10)
		I am confronted with conflicting demands in my work.	3.26 (0.86)	3.47 (0.77)	-0,21	1.25 (>0.10)

		I am confronted with conflicting expectations in my work.	3.40 (0.78)	3.47 (0.84)	-0,07	1.18 (>0.10)
		The information I receive is correct, nearly all the time.	3.26 (0.86)	3.47 (0.77)	-0,21	1.25 (>0.10)
		The assignments I receive are clear.	3.40 (0.78)	3.47 (0.84)	-0,07	1.18 (>0.10)
Social support	Peer support	I need to do my work on my own nearly all the time.	2.73 (1.05)	2.74 (0.99)	-0,01	1.13 (>0.10)
		A colleague takes over work from me if I cannot finish it in time	3.23 (1.03)	3.50 (0.86)	-0,27	1.45 (>0.10)
		My colleagues help me to finish a job when necessary.	3.60 (0.91)	3.84 (0.50)	-0,24	3.32 (>0.10)
		I talk to my colleagues of my own department about work.	4.11 (0.58)	3.84 (0.83)	0,27	2.05 (<0.10)
		I am often alone at my workplace.	2.57 (1.17)	3.74 (1.24)	-1,17	1.12 (<0.01)
	Support from supervisors	My supervisor is concerned about the welfare of those under him.	3.67 (0.99)	3.61 (1.04)	0,06	1.10 (>0.10)
		My supervisor pays attention to what I am saying.	3.58 (0.94)	3.56 (1.04)	0,02	1.24 (>0.10)
		I feel appreciated by my supervisor.	3.61 (0.97)	3.56 (0.98)	0,05	1.04 (>0.10)
		My supervisor is successful in getting people to work together.	3.58 (0.90)	3.56 (0.92)	0,02	1.04 (>0.10)
		My supervisor is helpful in getting the job done.	2.91 (1.07)	3.22 (1.00)	-0,31	1.14 (>0.10)

SUMMARY IN DUTCH [SAMENVATTING]

Eén op twee medewerkers in woonzorgcentra ondervindt te hoge werkdruk. Deze en nog meer onrustwekkende cijfers werden gevonden in de werkbaarheidsmonitor (2016) van de Sociaal-Economische Raad van Vlaanderen. In andere landen en regio's worden gelijkaardige resultaten gevonden. Knelpunten in de werkbaarheid van zorgjobs zijn een belangrijke hindernis om de voorspelde arbeidstekorten in de sector op te vangen. Vergrijzing in de geïndustrialiseerde landen zal immers zorgen voor een stijgende vraag naar bedden en dus ook een toenemende vraag naar zorgmedewerkers. Naast deze toenemende kwantitatieve vraag, is er ook een toenemende kwalitatieve leef- en zorgvraag. Bewoners hebben in toenemende mate complexe zorgnoden en willen almaar meer gepersonaliseerde maatzorg ontvangen. De proportie van de populatie op beroepsactieve leeftijd om aan deze toenemende vraag te voldoen daalt. Het verhogen van de werkbaarheid van jobs is een deel van de oplossing om arbeidstekorten te vermijden. Het is immers moeilijk om voor jobs met werkbaarheidsknelpunten voldoende nieuwe medewerkers aan te trekken, diegenen die vertrokken te overtuigen om terug te komen en om ervaren medewerkers te behouden.

Dit doctoraal proefschrift onderzoekt of het zorgconcept 'kleinschalig genormaliseerd wonen' de werkbaarheid van zorgmedewerkers verhoogt. Het concept is van oorsprong een Scandinavisch concept dat is ontstaan in psychiatrische centra. Vanaf 1970 heeft het concept 'kleinschalig genormaliseerd wonen' ingang gevonden in woonzorgcentra. In kleinschalige en genormaliseerde woonzorgcentra leven bewoners in een huiselijk omgeving, waarbij aan bewoners zoveel mogelijk wordt aangeboden om een leven te leiden zoals voordat ze in de zorgorganisatie verbleven. Het valt op dat het concept nauwelijks verwijst naar de inbedding van zorgjobs in de bredere organisatiecontext, terwijl net dit een bewezen impact heeft op de werkbaarheid van jobs. Het bewonersgericht zorgconcept lijkt dus de job van de medewerker uit het oog verloren te hebben. Dit proefschrift kijkt specifiek of inzichten uit arbeid- en organisatiesociologie kunnen bijdragen aan een beter begrip van de werkbaarheid van jobs in kleinschalige en genormaliseerde woonzorgcentra.

Om dit te onderzoeken werd gebruik gemaakt van een mixed-method onderzoeksdesign. In een eerste fase werd door middel van twee literatuurstudies (internationale context en Vlaamse context) gekeken naar de impact van het zorgconcept op de werkbaarheid van jobs. In een tweede fase werden deze resultaten verklaard en werd onderzocht hoe de werkbaarheidsknelpunten in kleinschalig genormaliseerd wonen opgelost kunnen worden. Hiervoor werd gebruik gemaakt van interviews met zorgmedewerkers en managers, vragenlijsten bij zorgmedewerkers, observaties, focusgroepen, stappentellers en administratieve data.

Dit doctoraal proefschrift toont dat ‘kleinschalig genormaliseerd wonen’ een eerste stap is naar meer werkbaar werk in woonzorgcentra. Woonzorgcentra die werken volgens de principes van kleinschalig genormaliseerd wonen hebben jobs met hogere werkeisen, maar ook met meer regelcapaciteit om hiermee om te gaan. De grootste knelpunten zijn sociale isolatie van collega’s en leidinggevenden, evenals pieken in tijdsdruk op bepaalde ogenblikken. Verschillen in de mate waarin deze knelpunten zich voordoen, werden gevonden tussen woonzorgcentra. Door gebruik te maken van inzichten uit organisatiestudies (en vooral de moderne sociotechniek) toont dit proefschrift dat dit valt te verklaren door de wijze waarop het zorgconcept is gerealiseerd in de praktijk en daarbij vooral door de verschillende organisatiecontexten waarin het concept is geïmplementeerd. Het concept blijkt namelijk gerealiseerd in organisaties met verschillende organisatiestructuren, evenals in verschillende architecturale omgevingen. Dit proefschrift toont dat deze organisationele inbedding een wezenlijke invloed heeft op de werkbaarheid van zorgjobs in kleinschalige en genormaliseerde woonzorgcentra.

Dit doctoraal proefschrift maakt gebruik van inzichten uit de moderne sociotechniek. De bevindingen van dit proefschrift dragen eveneens bij tot deze theorie. De moderne sociotechniek reikt een raamwerk aan om de manieren waarop taken worden verdeeld in organisaties (de organisatiestructuur) te bestuderen en om de impact hiervan op de werkbaarheid van jobs te verklaren. Dit proefschrift toont het belang aan van inzichten uit de moderne sociotechniek om organisatiestructuren weloverwogen vorm te geven. Het bevestigt eveneens dat organisatiestructuren een belangrijke rol spelen in het creëren van werkbare jobs.

SUMMARY IN ENGLISH

One out of two care workers experience excessive workload in nursing homes. Besides this, other worrying statistics were found in the Flemish Workability Monitor (2016) of the Social and Economic Council of Flanders as well. Similar results were found in other countries and regions. Issues with the quality of working life in the nursing home sector present a significant roadblock towards finding resolutions for the predicted labour shortages. An ageing population in industrialised countries will namely cause a growing demand for beds, and thus also lead to an increased demand for care workers. In addition to this increase in quantative demands, there is also a growing demand for qualitative life and care. Residents increasingly have more complex care needs and demonstrate a desire for more personalised care forms. The proportion of the population that is at working age and able to address these growing demands is decreasing. Improving the quality of working life is part of the solution with regard to avoiding labour shortages. It is, after all, difficult for these jobs with quality of working life issues to attract a sufficient number of new employees, to persuade those who left to return, and to retain experienced workers.

This doctoral dissertation researches whether the concept of 'normalised small-scale living' improves the quality of working life of care workers. The concept originated in Scandinavia, where it was developed in psychiatric centers. Since 1970 the concept of 'normalised small-scale living' started being introduced in nursing homes. Residents in normalised small-scale nursing homes live in a homelike environment, where they are offered the opportunity to live a life closely resembling the life they led before they moved to the care facility. It is striking that the concept barely refers to the embedding of care jobs into the larger organisational context, especially since it has been proven that the concept has an impact on the quality of working life. The resident-centered concept seems therefore to have lost track of the job of the care worker. This dissertation specifically examines whether insights from organisation studies could help improve the understanding of the quality of working life in normalised small-scale nursing homes.

In order to research the abovementioned, this dissertation makes use of a mixed-method research design. In the first phase, the impact of the care concept on the quality of working life was studied by conducting two literature reviews (the international and the Flemish context). In the second phase, the results of the first phase were explained and it was studied in what ways the quality of working life issues in normalised small-scale living could be resolved. The latter research made use of interviews with care workers and managers, surveys, on-site observations, focus groups, pedometers and administrative data.

This doctoral dissertation shows that 'normalised small-scale living' is a step in the right direction towards improving the quality of working life in nursing homes. Nursing homes that function according

to principles of normalised small-scale living have jobs with higher job demands. These jobs, however, also come with more regulation capacity that helps address those higher job demands. The biggest issues are social isolation of co-workers and managers as well as the periodical peaks in time pressure. It was also found that these issues arose in different degree and form across nursing homes.

By using insights from organisation studies (and especially Modern Sociotechnical Theory), this dissertation shows that this can be explained by the various ways in which the care concept is realised in practice and, especially, by the various organisational contexts wherein the concept is implemented. The concept seems to be realised in organisations with different organisational structures as well as different built environments. This dissertation shows that this organisational embedding has a profound impact on the quality of working life of care workers in normalised and small scale nursing homes.

This doctoral dissertation makes use of insights gained from the Modern Sociotechnical Theory, while its findings contribute back to the theory. The Modern Sociotechnical Theory offers a framework to study the way in which tasks are divided up in organisations (i.e. organisational structure) and to explain how that impacts the quality of working life. This dissertation shows the importance of insights gained from the Modern Sociotechnical Theory when it comes to shaping organisational structures in a well-thought-out manner. It also confirms that organisational structures play an important role in creating jobs with a high or low quality of working life.

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