Chapter 8

General Discussion

This thesis presents the outcomes of research on the working conditions and person-centredness of healthcare workers in long-term-care facilities for people with dementia. The aim is to gain insight into factors that contribute to a strong workforce. This insight is important, as a strong workforce is essential for the quality of long-term care.[1-4] The issue is becoming increasingly pressing because long-term care is now shifting from a traditional medical model towards more person-centred care in which the relationship and interactions between staff and residents are crucial. Furthermore, this insight is important given the current challenges in long-term care, such as the growing number of people with dementia, the relative decline in the population of working age, and the heavy workload of healthcare workers.

This thesis consists of two general parts. In the first part, key working conditions defined by the Job Demand-Control-Support Model[5,6] were studied for healthcare workers in long-term care facilities for people with dementia. The relationships examined in part 1 are schematically presented in Figure 1.1 in the General Introduction. The Job Demand-Control-Support Model assumes that the adverse effect of job demands on staff health and well-being is buffered best when both job control and workplace social support are high.[6] The most adverse health outcomes are expected in jobs with both high levels of demands and low levels of both control and social support in the workplace. In addition, the model proposes that employees are most activated and motivated when demands, control, and social support are all high.[7,8]

The second part focused on the person-centredness of the care staff. The specific relationships studied in part 2 are schematically presented in Figure 1.2 in the General Introduction. This part was based on Kitwood's theory of person-centred care.[4] According to this theory, the aim of person-centred care is to maintain the personhood of people with dementia by meeting their psychological needs. Furthermore, relationships in the social environment and interpersonal interactions are crucial to meeting the needs of this group and promoting their well-being.

In this final chapter, we present the main findings for both parts of the thesis as well as several methodological considerations, practical implications and suggestions for future research. This chapter ends with a number of concluding remarks.

Main findings: Summary and reflection

Part 1: working conditions and staff well-being

This section summarises and reflects on the main findings of the association between staff working conditions and: 1. job-related well-being (Chapter 3, Research Question 1); 2. the concept of small-scale care (Chapter 4, Research Question 2), and; 3. quality of care (Chapter 5, Research Question 3).

Working conditions and staff well-being

In general, our findings show that job demands are negatively and decision authority positively related to staff well-being. Decision authority was not only directly and positively related to job-related well-being, but also indirectly. It appears that decision authority can reduce the adverse effect of high job demands on job-related well-being. Decision authority can also activate and empower staff when both job demands and coworker support are high.

The negative relationship found between job demands and workers' job-related well-being is in line with earlier findings from occupational stress research.[9-12] Furthermore, the finding that the adverse effect of job demands on staff well-being can be reduced or *buffered* by high levels of decision authority corroborates the buffering hypothesis of the Job Demand-Control (DC) Model.[5] However, the expanded buffering hypothesis of the Job Demand-Control-Support (DCS) Model was not confirmed.[6] We did not find evidence that job demands were even more strongly buffered when decision authority and support were both high. The adverse effect of job demands was only found to be buffered by supervisor support when decision authority was low. Coworker support did not buffer the adverse effect of job demands on workers' job-related well-being. Finally, the activation hypothesis of the DCS Model was not confirmed because we did not find the expected three-way interaction effects. However, we did find that high levels of decision authority can activate and empower staff when both job demands and coworker support are high.

Our findings suggest that decision authority has greater potential to buffer the adverse effects of job demands and activate staff than supervisor support. This implies that the extent of decision authority is more important for healthcare staff's job-related well-being than the amount of supervisor support. An explanation for this finding is that healthcare workers who feel able to make their own decisions in their work are less dependent on support from their supervisor. To put it differently, healthcare workers who feel less autonomous might need continuous supervisor support to prevent them from feeling powerless and emotionally exhausted.

Finally, our findings for the association between coworker support and job-related well-being shed light on the positive and negative effects of coworker support that have been found in earlier empirical studies.[13,14] In general, we found that coworker support is positively related to staff well-being. By contrast, we also found that coworker support can have a negative impact on personal accomplishment in high strain jobs (i.e., low control and high demands). Deelstra and colleagues[13] found similar results for the negative consequences of social support. These findings might imply that supportive coworkers accentuate feelings of powerlessness and helplessness in high strain jobs by affirming others in their feeling that their work environment is as bad as or even worse than it actually is.

Small-scale care and staff working conditions

In view of the relationship between staff working conditions and staff well-being, it is important to gain insight into factors contributing to healthy working conditions. For that very reason, we studied the relationship between a more person-oriented and homelike care concept called *small-scale care* and staff working conditions. Our findings showed that small-scale care is related to fewer perceived job demands and greater decision authority. However, we did not find a relationship between small-scale care and staff's perceived coworker and supervisor support.

Our findings for job demands and decision authority are in line with earlier empirical studies15,16, but also add an important new insight. We found that small-scale care is negatively related to staff's perceived job demands *in addition* to the amount of staff available. Former studies were indefinite as to whether or not the effects found were caused by the somewhat higher staff ratio of care workers in small-scale care This is due to the fact that these studies simply did not take staff ratio into account.

Reasons for staff perceiving fewer job demands in small-scale care could be related to the lower priority given to demanding tasks in this concept of care because the focus of care is more person-centred than task-oriented. As a consequence, healthcare workers might feel less pressured to accomplish tasks at a particular time and, hence, are more likely to perceive sufficient time to provide good care to residents. Also, staff perceive fewer interruptions by colleagues providing other services given their integrated tasks. The fact that healthcare workers have more integrated tasks in small-scale care is probably also one of the reasons why small-scale care was found to be related to greater perceived decision authority. Integrated tasks are likely to provide staff with more autonomy in organizing their work, and allow staff greater flexibility and adaptability.

In our study, we did find that decision authority, in particular, is positively related to staff's perceived personal accomplishment (Chapter 3). Furthermore, it has been found in other studies that empowerment of healthcare workers has been found to increase staff effectiveness.[17] In light of these findings, the relationship found between small-scale care and decision authority is important. Especially, because long-term care facilities traditionally have a strict hierarchical nature limiting the decision authority of care staff.[18]

That we did not find a relationship between small-scale care and coworker support is remarkable. Healthcare staff tend to work alone more often in small-scale care settings. Some researchers have therefore suggested that small-scale care is related to less coworker support.[19] However, earlier research has shown that small-scale care was related to more coworker support.[15,16] Possibly, the novelty of the care model at the time of the earlier studies increased team spirit and made healthcare workers feel more supported by each other. Another explanation for the differences between our findings and earlier studies is that we used a different study design. Whereas we studied two indicators of small-scale care, the earlier studies compared a group of small-scale group living homes with a number of regular nursing homes.

Staff working conditions and quality of care

Our aim was to gain insight into the relationship of three key job characteristics (i.e., job demands, decision authority and social support) with two indicators of quality of care (i.e., the prescription of psychotropic drugs and physical restraints). Results showed that staff's job characteristics are hardly related to either the prescription of psychotropic drugs or physical restraints. We only found that more supervisor support was related to less prescription of benzodiazepines, and that more coworker support was associated with less prescription of deep chairs. Furthermore, a trend was found that the average number of prescribed psychotropic drugs per resident was lower in facilities where staff perceived more supervisor support on average. Job demands and decision authority were not found to be related to either the prescription of psychotropic drugs or physical restraints.

Our findings indicate that healthcare staff are *not* more likely to prescribe drugs or physical restraints in facilities with characteristics of an unhealthy work environment in terms of high workload and low decision authority. Empirical results found in earlier research are mixed. For example, Pekkarinen and colleagues[20] did find a positive association between job demands and the use of physical restraints, especially when job control was low. Huizing and colleagues[21], however, did not find such a relationship. An explanation for the mixed results could lie in differences in

the perceived amount of job demands and decision authority in the different study samples. The workers in the sample of Pekkarinen and colleagues[20], for example, perceived relatively more job demands and less decision authority as compared to our sample. Possibly, staff's job characteristics only have a negative influence on the usage of psychotropic drugs and physical restraints when the staff perceive too high, harmful levels of job demands and rather low levels of decision authority. Another explanation could be that there are substantial differences in decision-making between countries regarding the prescription of physical restraints. The influence of staff's job characteristics might be stronger when a physician's prescription is not required for the application of physical restraints, and when care is not organized in a multidisciplinary way, as it is in The Netherlands. Consequently, nursing staff have a bigger say in prescribing physical restraints in such cases.

The negative association found between supervisor support and benzodiazepines and psychotropic drugs could imply that staff are more capable of dealing with residents' challenging behaviour when they feel supported by their supervisor. Challenging behaviour is one of the most important reasons why benzodiazepines are used in dementia care. As far as we are aware, earlier research did not study the relationship between social support and the prescription of psychotropic drugs and physical restraints. However, earlier research did show a positive relationship between supervisor support and other indicators of quality of care. For example, a cross-sectional study among nurses in several countries reported that organizational and managerial support was crucial for improving patient care quality.[22]

Part 2: Person-centredness, staff well-being and residents' well-being

This section summarises and reflects on the main findings for healthcare staff's person-centredness. More specifically, we reflect upon the relationship between staff's person-centredness and their own well-being (Chapter 6, Research Question 4), and on the association between person-centredness of staff-resident interactions and residents' well-being (Chapter 7, Research Question 5).

Person-centredness and staff well-being

Although the relationships found between staff's perceived job characteristics and job-related well-being were much stronger than between staff's person-centredness and job-related well-being, as has been shown in other studies too[23,24], we did find some interesting results. We found that a person-centred attitude is positively related to staff's job-related well-being. In particular, healthcare workers who

are more person-centred feel more personally accomplished. However, we also found that more person-centredness was related to greater emotional exhaustion. Furthermore, there are indications that the importance of the two types of social support (i.e., coworker and supervisor support) for staff well-being depends on the degree to which they are person-centred. It was found that supervisor support is more strongly positively related to staff well-being when healthcare workers are highly person-centred. More specifically, staff with a high person-centred attitude seem to benefit more from supervisor support compared to those with a less person-centred attitude. In addition, we found that coworker support is less positively related to staff well-being when healthcare workers are highly person-centred. Our findings are in line with earlier findings of Alfredson and Annerstedt[18] and Brodaty and colleagues.[25]

With regard to supervisor support, our finding corroborates the importance that has been attached to supervisor or organizational support for the provision of person-centred care.[4,26-28] It also confirms the earlier statements by showing that the feeling of solidarity and satisfaction of person-centred healthcare workers can be strengthened when they feel supported by their supervisor, and can be jeopardized when they do not. This could be related to the importance of shared values and a person-organizational fit as stated by Bogaert and colleagues.[17] One can imagine that when highly person-centred healthcare workers experience that their supervisor does not share their person-centred values, a misfit will arise. As a consequence, they are not likely to feel supported, which may result in less job satisfaction and a greater desire to leave the organization. A recent qualitative study on ethical challenges, trust and leadership in dementia care also states that conflicting values in dementia care can cause staff to feel that they have to go against the work culture and the management to deliver good care. These conflicting values create frustrations and moral distress.[29]

Our current theory that coworker support seems to be less important for highly person-centred healthcare workers in relation to their well-being could be explained by the findings of Aström and colleagues.[30] They found that staff with a more positive attitude towards people with dementia experienced close contact with residents as the most stimulating part of their work. Possibly, the contact with residents is relatively more satisfying for highly person-centred healthcare workers and, consequently, the contact with their coworkers is less important.

Person-centredness and residents' well-being

We studied to what extent the various psychological needs of residents with dementia in long-term-care facilities are addressed or undermined by healthcare workers and to what extent this is positively or negatively associated with residents' well-being. Strikingly, even in the best performing care facilities on the LAD-study outcomes there was an average of only two person-centred interactions per hour. In care facilities performing less well, fewer person-centred interactions were observed, with only three such interactions over six hours as an absolute minimum. Thus, our findings show, that the number of person-centred interactions observed in daily practice is very limited – in line with earlier findings.[31-33] This is in contrast to a relatively high overall average score on the Approach to Dementia Questionnaire (ADQ)[34] used to measure person-centredness in Chapter 6. This might imply that the ADQ has a ceiling effect caused when staff know how they are supposed to think about people with dementia. This effect has been suggested in Lintern's study as well. Or there could be a big difference between knowing what to do and actually interacting in a person-centred way with people with dementia.

Furthermore, results showed that residents' well-being increased the most after staff-resident interactions addressing residents' needs for attachment, identity and inclusion. An example of such an interaction is: *'Mrs. de Vries is expressing concern about red spots on her arms. Ramona explains that this could be caused by the blood thinners she uses. Mrs. de Vries asks her: "Am I getting these?"; Ramona immediately checks Mrs. de Vries's file to see if it is correct. She comes back and, sitting at eye level, tells Mrs. de Vries that she does indeed use blood thinners.'* Although in this example Ramona did a good job, in general healthcare workers do not often address these needs. They seem to be more focused on residents' comfort and occupation.

The finding that most staff-resident interactions did not address the need for attachment, identity and inclusion confirms concerns regarding the general failure to recognize the persistence of self and identity in persons with dementia. This finding might be related to the fact that vocational training for healthcare workers is primarily focused on care related, rather than well-being related knowledge and skills.[35] The latter are important for students to learn to be able to empathise with people with dementia and to communicate with them in a person-centred way by recognizing the persistence of their self and identity.

Finally, the fact that not all person-centred staff-resident interactions were found to be positively associated with residents' well-being, shows the importance of individualizing person-centred care.[36] This means that healthcare workers should

observe each resident carefully to ascertain which particular person-centred interactions have a positive impact on each individual resident's well-being.

Methodological considerations

Strengths and limitations of the Living Arrangements for people with Dementia (LAD) study

Using data from the Living Arrangements for people with Dementia (LAD) study for answering our research questions has several strengths and limitations. The main strength of the LAD-study is its broad scope in terms of research locations, participants and measures. Data were collected on 1,147 healthcare staff and 1,366 residents from 136 long-term-care facilities throughout the Netherlands comprising a relatively large and representative sample of different types of long-term-care facilities (i.e., traditional large-scale nursing homes, nursing home wards in homes for the aged, and small-scale group living homes). Staff ratios in the facilities included in the LAD-study are comparable to those of other, international studies on nursing home care, for instance Zimmerman et al[37] and the studies included in Spilsbury et al.[38] The LAD-study included data about matters such as the organization of care, staff working conditions and well-being, residents' functioning, quality of life and quality of care. The broad scope of the LAD-study is an important strength for several reasons. The large sample size and the relatively large number of facilities included enabled us to use advanced statistics which take into account the multiple levels available in the data. Furthermore, the large sample size made it possible to study complex interactive relationships (Chapters 3 and 6). Finally, the data enabled us to study relationships between variables obtained from different sources (Chapters 4 and 5), and to adjust the analyses for potential confounders from different sources (Chapters 4 and 5).

A first limitation of our study is the use of baseline data only, implying that no causal relationships can be empirically demonstrated. They can only be assumed and cross-sectionally tested in line with theory and earlier research. Notwithstanding this limitation, longitudinal studies on regular and reverse causation of the relationships between job characteristics and staff well-being found that the relationships were best accounted for by a regular causation model with paths from job characteristics to well-being.[39,40] This is consistent with the key assumptions of the DCS Model of Karasek and Theorell7 (Chapter 3). Furthermore, we do not expect that lower job demands will lead to more small-scale care, as this is highly

unlikely (Chapter 4). Of course, we also studied associations in which a reverse interpretation might be possible. One example is the relationship between staff's job characteristics and the number of physical restraints and psychotropic drugs used (Chapter 5). A reverse interpretation would be that when staff use more restraints and drugs, they might perceive less time pressure.

A second limitation of using the LAD study is the risk of common method variance due to using self-report measures for the key variables. For instance, in Chapters 3 and 6, predictors and well-being outcomes were assessed using self-report measures. This might have inflated the observed correlations. For example, the relationship found between job demands and emotional exhaustion could be overestimated because staff reported on both types of measure using the same answering format. However, the literature is inconclusive on this issue. On the one hand, there is meta-analytical research comparing the correlations found in mono-method and multi-method studies concluding that in most cases there were no differences between the two methods.[41] On the other hand, there are studies that conclude the opposite: relationships between many widely studied constructs are strongly influenced by whether their measures are obtained from the same or different sources.[42]

A third limitation is related to the robustness of the interaction effects found (Chapters 3 and 6). The robustness is questionable as these effects accounted for relatively little explained variance (R^2 ranging from 0.2% to 1.5%). However, these numbers do compare to those found in other studies in this research area.[43,44] This could mean that some kind of upper limit exists for explained variance found in research of interaction effects. Furthermore, the amount of variance explained by the interaction effects does not necessarily provide information on their practical importance[45]. Therefore, Aguinis and colleagues[45] emphasized the importance of a qualitative study when examining interaction effects, in order to be able to describe the nature and magnitude of the interaction effect in practical terms.

Strengths and limitations of the in-depth Dementia Care Mapping study

In contrast to the chapters in which the sample of 136 long-term-care facilities was used, we employed observational data collected in a subsample of nine facilities in Chapter 7. This in-depth study has two important strengths. First, it constitutes a serious attempt to capture the experience of care from the perspective of the residents with dementia using a standardized method. Second, unlike the self-report measures used in this thesis (e.g., person-centredness in Chapter 5), this chapter actually focuses on how staff interact with residents in daily practice through observation.

Although the sample size of this in-depth study was rather small, it served the aim of this first explorative study of staff-resident interactions and the extent to which they are associated with residents' well-being. However, in future research a larger, representative sample could provide an extensive overview of staff-resident interactions in long-term-care facilities and enable more robust analysis.

Practical implications

The results of this thesis have several practical implications for creating a stronger workforce in long-term-care facilities for people with dementia. In general, it seems to be important to create a healthy work environment in which staff perceive a reasonable level of job demands (i.e., not excessively high), and at the same time feel able to make their own decisions and feel supported by their supervisor. Such an environment fosters job-related well-being. In addition, investment is needed to further improve staff's person-centredness towards people with dementia. The remainder of this section elaborates upon several specific practical implications.

1. Diminish the hierarchical nature of nursing home care to improve staff well-being

The study in Chapter 3 showed that decision authority has a positive impact on staff's job-related well-being and can buffer the adverse effect of job demands. This implies that a hierarchical organization and work environment should be avoided to a large extent. This is even more important because earlier studies found that high levels of decision authority also have a beneficial impact on resident outcomes and quality of care.[22,46,47] Increasing staff's decision authority corroborates with one of the spearheads of a recent plan of the Dutch Ministry of Health, Welfare and Sports to improve the quality of long-term-care facilities in the Netherlands: more leeway for and better quality of professionals.[48] The development towards care concepts like person-oriented small-scale care in the Netherlands can provide a direction to increase staff's perceived decision authority (Chapter 4). The concept of self-managed work teams is another direction that most likely contributes to staff experiencing more decision authority in their job.[49]

Earlier research findings suggest that special attention should be paid to the way the hierarchical nature of an organization is diminished and higher levels of decision authority are introduced. It has, for example, been found that the positive effects of self-managed work teams are highly dependent on whether the teams have been

implemented appropriately.[49] Thus, when care organizations, for example, start a small-scale group living home in which healthcare workers have to make decisions themselves more often, it is important to invest in enabling employees to manage these new responsibilities. Based on qualitative research, Jakobsen and Sørlie[29] report that after responsibilities are handed over to healthcare workers, they still demand a leader. They prefer a leader as advisor, coach and role model rather than an autocratic leader. This means that leaders should actively relate to the trust they are giving and make sure that healthcare workers feel seen and heard in their everyday challenges.[29] In addition, leaders should ask themselves whether healthcare workers possess the qualifications to safeguard the trust they are receiving. Finally, there should be a shared set of values and goals in the facility, enabling healthcare workers to make decisions throughout the day. When these are absent, decisions are likely to be arbitrary, uninformed and based on conventional factors.[50,51]

2. Invest in supervisors to improve staff well-being and quality of care

Given the positive findings of supervisor support in relation to staff well-being in Chapter 3 and on psychotropic drug use in Chapter 5, it is likely that supervisors also play an important part in improving the quality of dementia care. Therefore, investment in supervisors' skills and competencies are needed. The definition of supervisors depends on the structure of the organisation. Supervisors of healthcare workers in long-term-care facilities are often middle managers, such as team leaders or care managers. But sometimes they are managers at a greater distance, such as care or regional managers or team coaches, in organisations with self-managed work teams.

The Dutch State Secretary of Health, Welfare and Sport recently stressed the importance of leadership for high-quality nursing home care.[48] This study shows that it is indeed important to invest in supervisors' skills and competencies because of two additional reasons. First, supervisors also determine staff's perceived level of decision authority by the extent and manner of their supervision of employees' tasks.[12] Our findings suggest that knowledge of healthy working conditions for healthcare workers, and skills to lead and manage healthcare workers while giving them higher levels of decision authority are two important focus points for investment in supervisors in dementia care. Recently, the Aged Care Clinical Leadership Qualities Framework (ACLQF) was developed in Australia to improve the definition of clinical leadership abilities in aged care middle managers.[52] The focus points we mentioned can be seen as a specification of one of the quality attributes in the Australian ACLQF: "A leader influences and participates in the effective management and deployment of staff and other resources" (page 1002).

Second, supervisor support seems even more important because long-term care is moving towards a more person-centred approach to care, and supervisor support is especially important for highly person-centred staff (Chapter 6). Furthermore, supervisors' attention for person-centred care is needed given our findings (Chapter 7) that staff's person-centredness shows room for improvement. Supervisors need training to improve their knowledge and skills related to dementia and person-centred care, in order to be able to implement this kind of care and support team members to provide person-centred care. This will also help person-centred healthcare workers feel supported when they and their supervisor share the same philosophy of care and strive for the same goal. These aspects are closely related to two of the attributes of the ACLQF that place person-centred care as the central objective of clinical leadership in aged care.[52] These are "a leader commits to and facilitates the delivery of clinical care that is underpinned by person-centred care" (page 1007), and "a leader accesses and uses evidence to guide self and staff to implement person-centred care" (page 1007). To our knowledge, such a framework does not exist in the Netherlands. The attributes described in the ACLQF can give guidance to the training for and development of supervisors needed in dementia care in the Netherlands.

The suggested knowledge and competencies needed for supervisors are similar to the characteristics of a so-called transformational leader.[53,54] Transformational leadership entails that a supervisor or leader inspires followers to shared vision, values, and mission while stimulating them emotionally and mentally. Furthermore, it promotes trust and teamwork while empowering all members of the healthcare team to take an active role in the direction and functioning of the organization. A transformational leadership style has been linked to improved working environments, improved health and wellbeing of both staff and patients, and better outcomes.[53,55]

3. Reflecting on and adapting the concept of care to prevent or reduce high strain

Our findings of Chapter 3 show again the relevance of trying to avoid or modify high strain jobs (i.e., high levels of job demands and low levels of decision authority). Results of Chapter 4 provide a direction to do so. This direction is different from the solution that is often thought of when wanting to overcome high strain work situations, i.e. increase staffing levels. Given the restricted budgets, increasing the number of staff is often not possible, but can also be undesirable for two reasons. First, such an approach would focus on only one aspect of a high strain work environment, namely high job demands. We found that decision authority in itself is

positively related to staff's perceived job strain and can buffer the adverse effect of high job demands (Chapter 3). Second, it was detected that improving staffing levels in an inadequate work environment can be counterproductive and would only add to costs without having a substantial impact on patient outcomes.[56]

To improve working conditions and decrease job strain, it might help care organisations to reflect on their philosophy and organisation of care regarding two continua. The first continuum is from a task-oriented organization of care, focusing on strict rules, regulations and the tasks that need to be performed, to a resident-oriented or person-centred organization of care, focusing on the wishes and needs of individual residents. The second continuum is from a care organization with a mechanistic structure in which jobs are specialized, the workflow is standardized and decision-making is centralized, to an organic, decentralized structure with an autonomous work design that allows for flexibility and adaptability.[57] The traditional organization of long-term-care facilities is more task-oriented and mechanistic, and creates a hierarchical work environment in which healthcare workers have little authority or say. This contrasts with an organization with a small-scale care concept that is person-oriented and has an organic organizational structure in which healthcare workers are likely to have integrated tasks. The reflection can help care organisations to find out whether there are certain characteristics of the way they organize care that negatively influence working conditions and create high job strain that they need to adapt.

4. Provide training and coaching regarding person-centred care to improve residents' well-being

In order to positively influence the well-being of residents with dementia, training and coaching of (future) healthcare workers should focus on person-centred ways of interacting with this group. Training and coaching should focus on raising staff awareness of the influence of their behaviour on residents' well-being and the opportunities that occur during the day to make a difference. Findings of Chapter 7 provide insight into what kind of staff-resident interactions are positively and negatively related to residents' well-being. It is suggested that training and coaching should in particular focus on how to address residents' needs for identity, attachment and inclusion and prevent the undermining of residents' need for comfort. This insight can be used to teach healthcare workers how they can improve the impact of their interactions and thereby increase the likelihood that their interactions will positively influence the well-being of residents with dementia. This is all the more important given the increasing attention for residents' needs and well-being in

dementia care concepts and philosophies of care around the world, such as the Eden Alternative, Planetree, Sylvia Hemmett, Green houses, Presence, Small-scale care, Emotion-oriented care, and Person-centred care. Accordingly, the relationships in the social environment and interpersonal interactions with people with dementia are crucial in all of these concepts of care.

There are a few promising initiatives in the Netherlands in this respect. In recent years, new educational materials have been developed that promote a more person-centred approach. Examples are the study packets that are derived from the documentary 'Dementie en dan'[58], the e-learning developed by the Trimbos Institute's 'Leren over dementie', www.lerenoverdementie.nl[59] and the study packets developed by the Applied University of Rotterdam.[60] An important focus of the latter two is to increase staff and student awareness of the influence of their behaviour on residents' well-being. The changing focus of vocational training is important because vocational training for healthcare workers is still primarily focused on care issues.[35] However, training for healthcare workers working with people with dementia should focus on promoting and supporting communication that recognizes self and identity of people with dementia as key competencies as well.[32,61-63] The changing focus of vocational training can mould students' attitudes towards people with dementia early on.

Fortunately, the Dutch State Secretary of Health, Welfare and Sport has recently stated that the key to better quality of care is good education that is tailored to daily practice with a focus on a person-centred attitude.[47] Also, the Dutch Health Care Inspectorate has recently stressed that the consistent involvement of a geropsychologist is an important precondition to provide good care in nursing home care for people with dementia.[64] This enables the ongoing attention for residents' behaviour from a person-centred perspective in meetings with both care workers and a psychologist.

Implications for future research

The results of this thesis point to several recommendations for future research. These recommendations will be discussed in this section.

1. Studying a greater scope of job demands and job resources in a broader theoretical framework

This study focused on one type of job demands, i.e. perceived work and time pressure, and two job resources, i.e. decision authority and social support. Future research should examine a wider range of both job demands and resources. For example, our study did not include emotional demands that healthcare workers caring for people with dementia will surely perceive. It is thought that the interpersonal relationships involved in caring for others are strongly related to emotional demands.[65] In dementia care, these emotional demands can, for example, originate from dealing with challenging behaviour of residents with dementia, such as aggression or restlessness, that can be stressful.[66] Future research should therefore focus on the question with which type of resources job demands can best be dealt with. This could create further insight into fostering job satisfaction and preventing burnout.

Models of occupational stress that elaborate on the DCS Model that include a wider range of both job demands and resources exist and could be used as a base in future research. These include the Job Demands-Resources Model[67] and the Demand-Induced Strain Compensation (DISC) Model.[65] The DISC Model, for instance, assumes that specific types of job demands, such as emotional demands, can best be dealt with through the activation of specific job resources that match with or correspond to the type of job demands (e.g., emotional support from the supervisor or colleagues). Moreover, Bakker and Demerouti[67] state that the type of job demands and job resources that play a role in a certain organizations depend upon the specific job characteristics that prevail. Research is needed to provide insight into which specific job resources are or should be available, that match the specific demands in dementia care, and how this can strengthen the workforce.

Finally, the amount of variance explained by the interaction effects that are an important aspect of the studies on occupational stress models such as the DCS and DISC Model do not necessarily provide information on their practical importance.[68] Therefore, Aguinis and colleagues[45] proposed a qualitative study when studying interaction effects to be able to describe the nature and magnitude of the interaction effect in practical terms. For example, in order to gain more insight into the

practical implications of the interaction effects found in Chapter 6, interviews could be held with healthcare workers and their supervisors to ask them if they recognize our findings and what they mean to them.

2. Studying the impact and implementation of self-managed work teams

In line with our finding that more decision authority has a positive impact on staff well-being, one could suggest that the rise of self-managed work teams in long-term-care facilities in the Netherlands is a good thing. International research on self-managed work teams in manufacturing settings showed that such work teams result in improved performance, higher job satisfaction and lower turnover compared to environments in which employees are managed in a more traditional way.[49,69] However, too little information is available on the effects of self-managed work teams in long-term-care facilities on quality of care, resident and staff well-being to draw this conclusion.

Only a few studies have been performed on the effects of self-managed teams nationally and internationally. One study indicated that these teams had modest, positive effects, such as increased empowerment and performance of Certified Nursing Assistants (CNAs), improved resident care and choices, and improved procedures and coordination.[69] Unfortunately, this study did not ask residents for their perceptions. The limited amount of research that has been done in this regard in the Netherlands focused on home care.[70] This suggests that self-organised teams can lead to health gains for clients, greater client satisfaction and improved clients' ability to do things independently, as well as higher profits. However, it is not possible to generalize these results to long-term-care facilities for people with dementia because, among other things, the educational level of healthcare workers in home care differs from healthcare workers in long-term-care facilities in the Netherlands. And given the importance of supervisor support found in this study, it is important to also focus on the environment, including the extent to which staff are supported in organisations with self-managed work teams.

Finally, research focusing on the effects of self-managed work teams in long-term-care facilities should also examine the success of implementing these kinds of teams and the changes they may bring about. Studies conducted in manufacturing settings report that where implementation was poor, performance sometimes dropped and turnover increased.[69] Given the findings of the qualitative research of Jakobsen and Sørlie[29], research on this issue in long-term-care organisations should pay attention to whether leaders, during and after moving towards self-managed

work teams, actively follow up on the trust they are giving to healthcare workers and whether healthcare workers feel seen and heard in their everyday challenges.

3. Studying investment in supportive leaders and the effects of leadership styles

Future research is needed to reveal what the effects of the proposed investment in supportive leaders will be. Until now, the knowledge and skills of, and training needed for, supervisors in dementia care and their effects have not been studied thoroughly. In addition, theory development in aged care leadership and management research is limited.[71] As we mentioned in the Practical Implications section of this chapter, the suggested knowledge, skills and competencies needed for supervisors are similar to the characteristics of a transformational leader[53,54] which have been attributed to improved working environments, improved health and well-being of both staff and residents.[53,55] However, to visualize the added value of investment in the leadership style of supervisors in dementia care to policy makers and directors of long-term-care facilities, more intervention studies are needed, such as the current Randomized Controlled Trial (RCT) of Jeon and colleagues.[72] In this study, the effectiveness of an aged care specific leadership and management program was studied on workforce, work environment, and care quality outcomes.

4. Studying the impact of person-centred care and its implementation

First of all, further research is needed to study more thoroughly how relationships in the social environment of and interpersonal interactions with people with dementia can address particular psychological needs and thereby positively influence the well-being of people with dementia. As we described in Chapter 7, further research on this topic would benefit from a prospective research design with a large, heterogeneous sample of staff (e.g. age, education) and residents (e.g. stage of dementia) in different types of facilities in which staff-resident interactions are observed.

In addition, research is needed that investigates how person-centred care can be implemented and maintained. What are important aspects of an implementation strategy for person-centred care? This is especially important since staff report having a relatively high person-centred attitude (Chapter 6), while observations in daily practice show that person-centred interactions are rather limited, in particular the ones found to be positively related to residents' well-being (Chapter 7). The question remains what is needed to truly improve the chances of meeting the needs of people with dementia in long-term care. Is training of healthcare workers enough? A recent systematic review of interventions to change staff care practices in

order to improve resident outcomes in nursing homes concluded that changing staff practices in nursing homes is possible but complex.[73] In more detail, many authors suggested that without changes to policy, practice, and staff selection, services will not assimilate person-centred principles, and care workers will not be able to truly put person-centred care into practice.[4,36,74,75] And, to meet the needs of people with dementia, not only staff, but also family members and volunteers should be involved and educated about person-centred approaches. Therefore, creating dementia friendly environments and communities, which currently is an important focus of several countries and Alzheimer's organisations, is of utmost importance.[76]

The findings of this thesis can guide the attention paid to staff working conditions when implementing new interventions, aiming to contribute to person-centred care and conducting randomised controlled trials (RCTs). This is important since a recent review of interventions to change staff care practices in long-term-care facilities, found that many studies reported barriers relating to staff or organisational factors.[73] For example, barriers and facilitators found for successful implementation in a RCT of Dementia Care Mapping[77] and a care program for managing challenging behaviour[78] were largely related to organizational aspects, such as the supportiveness of supervisors as well as management and staff's perceived workload. Finally, the researchers of the Person-Centred Dementia Care and Environment trial (PerCEN trial) paid a great amount of attention to the implementation of person-centred care through semi-structured interviews and surveys with study participants.[79] They found that successful implementation starts with managerial leadership and support, is sustained when staff are educated and assisted in applying person-centred care, and along with families, come to appreciate the benefits of flexible care provision and teamwork.

5. Performing ongoing monitoring studies in dementia care

Finally, ongoing monitoring studies in dementia care are needed to gain insight into trends and new developments in this field. This is especially important given the reforms currently taking place in the Netherlands[80], and the investment that will be made by the Dutch government to stimulate improvements in nursing home care.[48] It is likewise important in view of the fact that important goals, such as decreasing the use of psychotropic drugs in long-term-dementia-care facilities[81] and the prevalence of a person-centred approach to people with dementia have not been achieved yet. This is also underlined by studies focusing on activity involvement and occupation of residents with dementia in long-term-care facilities that found that residents spend the largest part of the day unoccupied, while occupation is related to quality

of life.[82,83] Monitoring studies enable governments to follow the effects of changing policies and practices to define pointers for further improvement. Moreover, the researchers, and managers and professionals working in the long-term-care facilities participating in the LAD-study aim to extend the practical implications of this particular monitoring study by working together (co-creation). They collaborate to define important new research questions and current issues that need special attention. This is a unique aspect of the LAD-study and ensures that the findings are also significant for daily practice in long-term care for people with dementia.

Concluding remarks

To conclude, the first part of this thesis aimed to arrive at a better understanding of 'healthy working conditions' for healthcare workers in long-term-care facilities for people with dementia. Findings showed in particular the importance of the two job resources *decision authority* and *supervisor support*. The second part focused on how healthcare workers' person-centredness is related to healthcare workers' own and residents' well-being. It showed that person-centredness has a mainly positive impact on residents and staff. Results of this thesis indicate that a broad approach is needed to create a strong workforce caring for people with dementia in long-term-care facilities. It is important to not only focus on training of healthcare workers. It seems equally important to pay attention to the way supervisors lead and support healthcare workers, and the way care is organized, given organisations' concept of care. This influences the way care is provided to residents and how healthcare workers perceive their work. This is important not only to positively influence staff well-being, but also to contribute to residents' well-being. The proposed broader approach, focusing on staff, supervisors or leaders, as well as the organization of care strongly relates to several spearheads of the Dutch State Secretary of Health, Welfare and Sports.[48] It will be a great challenge for the coming years to put this broad approach into practice and thereby further improve the quality of care in long-term-care facilities for people with dementia.

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