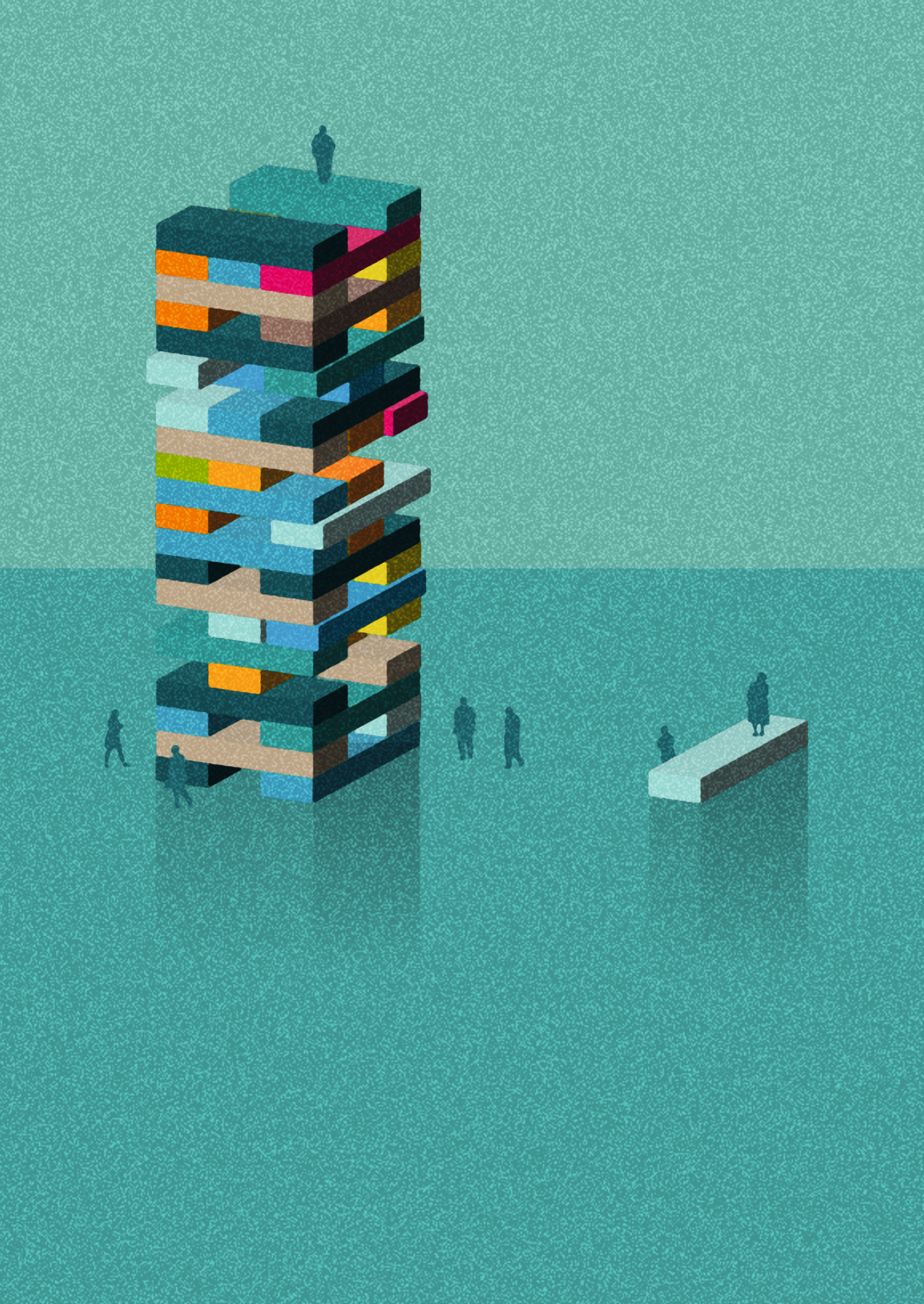
A challenging rehabilitation environment: CREATE a team self-evaluation tool

Tijsen, L.M.J.



Chapter 7

General discussion

This thesis describes the results of the CREATE study (Challenging REhAbiliTation Environment). The overall aim of the CREATE study was to conceptualize a challenging rehabilitation environment, and to develop a tool to support rehabilitation wards in improving this.

The CREATE study is the first study which positions the concept of a (socio) therapeutic climate in Geriatric Rehabilitation. A (socio)therapeutic climate is a well secured concept in psychiatry and this broad perspective on treatment has proven its added value in this field.[1-3] The combination of the social, physical, and organizational environment is also used to achieve therapeutic goals in nursing home residents with dementia.[4] These positive outcomes gave inspiration to apply the broad approach of a (socio)therapeutic climate in the rehabilitation of older persons as a challenging rehabilitation environment (CRE). The concept of CRE contains more than only the contact or therapy moments lead by therapists. Therefore, in this thesis the name "challenging rehabilitation environment" is used. As the concept describes a broad approach aimed at challenging rehabilitants to achieve optimal rehabilitation results, this name describes the concept best.

To achieve the above-mentioned aim of this thesis, the following research questions were addressed:

1. Which aspects are important in a challenging rehabilitation environment and how can these be combined in a conceptualization?
2. To which extent is a team self-evaluation tool feasible to support rehabilitation wards by implementing a challenging rehabilitation environment?

In this final chapter of this thesis, the main research findings are presented and critically discussed. Hereafter, implications and recommendations for clinical practice, future research and education are presented.

Main research findings

The five studies presented in this thesis have jointly resulted in a conceptualization of CRE and an associated tool that can help rehabilitation wards implement CRE. The framework of the studies and chapters in this thesis has led to this conceptualization being a combination of evidence-based, expert-based, and experience-based knowledge.

The conceptualization of a challenging rehabilitation environment

Chapter 2 describes a narrative review into relevant literature concerning CRE. After a PubMed search, 51 articles were included, leading to seven relevant topics for CRE. These topics considered: 1) therapy time, 2) group training, 3) patient-regulated exercise, 4) family participation, 5) task-oriented training, 6) enriched environment, and 7) team dynamics.

Because CRE is a relatively new concept, there was a possibility that the above-mentioned review had not examined all aspects important to CRE. Therefore, two qualitative studies were performed. In **chapter 3** a qualitative study into the perspectives of rehabilitants and informal caregivers regarding CRE is described. And **chapter 4** describes a qualitative study into the perspectives of professionals. The participants of both studies confirmed the importance of the topics that had emerged in the narrative review, but they also mentioned new topics. A total of 15 rehabilitants, six informal caregivers, and 180 professionals participated in both studies. Participants in both studies were unanimous about the topics of interest to CRE, but the emphasis placed on the topics was different. As a result, the professionals' analysis led to 11 themes and the analysis of the rehabilitants and informal caregivers to 13 themes. The topics identified in both studies concerned 1) rehabilitant, 2) goals, 3) involving informal caregivers, 4) exercise, 5) daily schedule, 6) nutrition, 7) eHealth, 8) environmental aspects, 9) staff aspects, 10) organizational aspects, and 11) return home. For rehabilitants and informal caregivers, communication and peer support were two separate themes, while for professionals these topics fell under involving informal caregivers and exercise respectively.

In **chapter 5** concept mapping was used to combine the input of the first three studies into an evidence-based, expert-based, and experience-based conceptualization. The results from the previous studies were summarized in 70 statements, which were divided over five clusters ; goals, rehabilitant and informal caregiver, staff aspects, environmental aspects, and exercise and peer support.

The cluster *goals* summarizes aspects relevant for the goal setting process. In the next cluster, *rehabilitant and informal caregiver,* the focus is on factors concerning the rehabilitant and informal caregiver. In a CRE it is important that the rehabilitant and informal caregivers are part of the rehabilitation team. The third cluster focusses on *staff aspects*. Staff in a CRE should apply an interdisciplinary working method, and all team members should be focused on rehabilitation during daily activities. In the fourth cluster, *environment aspects* in a CRE are combined. The design of the rehabilitation ward should stimulate and challenge rehabilitants. The last cluster focusses on aspects relevant for *exercise and peer support*. Rehabilitants are encouraged to work on their rehabilitation throughout the day, which can be achieved by group training and patient regulated-exercise. In addition, peer support is encouraged, so that rehabilitants can learn from each other and encourage and support each other.

The team self-evaluation tool for a challenging rehabilitation environment

Based on the above-described conceptualization of CRE, a self-evaluation tool for teams regarding CRE was developed in the final study of this thesis (**chapter 6**). In this CREATE-tool an interdisciplinary representation of the rehabilitation team individually rated the 70 statements of the conceptualization of CRE using a plan, do, check, act methodology. These ratings were treated as ordinal data to convert them in individual and team standardized cluster ratings, which were presented in a radar diagram with five axes. The individual and team standardized cluster ratings were input for a team meeting in which the participants discussed the results per cluster and tried to identify the team's strengths and areas for improvement. After this discussion the participants each indicated three quick wins and three ideas for improvement that are important but take more time to implement.

In chapter 6 the CREATE-tool was tested in 5 rehabilitation wards, that included 50 team members. It showed that the CREATE-tool could identify areas for improvement for rehabilitation wards, and to be a feasible methodology for the assessment of areas for improvement.

Theoretical considerations

Although the framework for the development of the conceptualization and the CREATE-tool included a literature search and several rounds of systematic stakeholder involvement sessions, there are some theoretical themes that have not been extensively included in the tool, and these should here be discussed.

Neuropsychiatric symptoms

During the rehabilitation, rehabilitants and informal caregivers must cope with the life event that was the indication for the rehabilitation. This indication can lead to neuropsychiatric symptoms, especially in neurological disorders such as stroke, or when the rehabilitant has a delirium. Examples of neuropsychiatric symptoms are altered stimulus processing, overburden, decline of executive functions, loss of memory, loss of initiative, and problems with dealing with emotions. Literature has shown that neuropsychiatric symptoms like depression, disinhibition and anxiety are highly prevalent in rehabilitants, and these symptoms are negatively associated with quality of life and home discharge after rehabilitation.[5-9] In the qualitative study presented in chapter 3, rehabilitants and informal caregivers indicated that they experience a lack of attention for neuropsychiatric symptoms and the emotional aspects of the rehabilitation. These aspects were referred to a number of times in the conceptualization and the CREATE-tool, but this is only a small part of the tool and not always integrated into the whole process of rehabilitation. Therefore, there is a chance that these aspects will be overlooked, and professionals mainly focus on stimulating physical functioning during rehabilitation. Information about neuropsychiatric symptoms and their treatment may result in better rehabilitation outcomes.[5-9] Therefore, it is important in a CRE to pay attention to all aspects of rehabilitation, including neuropsychiatric symptoms.

Informal caregivers

The conceptualization of CRE includes informal caregivers being educated about the medical condition of their loved one, and to give attention to their coping ability, change of role, and grieving process. But above all, the informal caregiver is deployed as a team member who participates in the rehabilitation process. Involvement of informal caregivers in the rehabilitation of older adults leads to better rehabilitation outcomes and return home.[10] The primary informal caregivers are often spouses and children, and their caring roles involve providing assistance with daily activities, including physical care, and provision of emotional support.[11-13] Involving informal caregivers in the rehabilitation, and training and educating them in various aspects of the disease process such as recovery, interventions, and skills needed to care for their loved ones, has positive effects on the caregivers' quality of live and ability to cope with burden.[13,14]

Despite the sufficient evidence for the positive effects of involving informal caregivers in the rehabilitation process, we should not forget they have an emotional bond with the rehabilitant. They are not only a functional partner in the rehabilitation process and the life afterwards, but also an emotional partner of the rehabilitant. So, in order to maintain their role as informal caregiver in the long term, they must also be given space to be this emotional partner to their loved one.

Nudging

Nudges are subtle changes in the way options are presented, designed to influence decisions in a predictable and healthy way and achieved by relying on well-known decision-making tendencies.[15] The last 15 years nudging is increasingly used in research into behavioral change, for example to stimulate sustainable and healthier food choices, organ donation, and to improve sleep, physical activity and sedentary behavior.[16-19] Nudging is still a relatively new concept within geriatric medicine, which is why this theoretical concept was not included at the start of the CREATE study and was not presented as a topic to the participants of the qualitative studies of chapter 3 and 4.

Even though nudging was not explicitly mentioned in the studies in this thesis, certain aspects of CRE can be seen as nudging and stimulate rehabilitants to participate more active in their rehabilitation process. The statements in the

conceptualization about the layout of the ward being challenging and providing safety to practice independently can be an example of nudging. This could include exercise equipment in communal areas or chairs in corridors that can provide an extra moment of rest while walking. Another example of nudging is the statement about offering enriched food, which can be seen as nudging towards a healthy eating pattern. Therefore, nudging seems an interesting methodology to encourage rehabilitants and to apply within a CRE.

eHealth

Of the 70 statements in the conceptualization of CRE, only two statements mention the use of eHealth. eHealth can support monitoring of outcomes, clarify changes in functioning, and make exercise fun and challenging. However, it is remarkable that eHealth is not mentioned more often in the conceptualization, as it has proven its benefits in geriatric rehabilitation. Recent reviews have shown positive effects of eHealth, e.g. for improving physical activity, walking ability, and balance.[20-23] A possible explanation for the limited presence of eHealth in the conceptualization may be the way this conceptualization was developed. eHealth was not included in the search strategy for the review of chapter 2, so, all aspects regarding eHealth in the conceptualization originated from the input of professionals, rehabilitants and informal caregivers. As rehabilitants and informal caregivers are not always aware of the developments regarding eHealth in geriatric rehabilitation, the input regarding eHealth was mainly given by professionals. A recent international survey indicated that professionals felt that eHealth is complex for rehabilitants to use, and that a lack of knowledge and insufficient resources were important barriers for the use of eHealth in geriatric rehabilitation.[24]

These factors may explain why eHealth was not mentioned more often in the final conceptualization of CRE. Regardless that eHealth is only explicitly mentioned in two statements, it can support achieving the topics identified in the other statements. For example, eHealth can support in challenging rehabilitants to practice independently, it can help in providing appropriate information (e.g. about the condition for which they are rehabilitating), and it can support rehabilitants in managing stimuli and coping with disabilities.

Methodological considerations

The conceptualization of CRE and the CREATE-tool were created based on an extensive study that combined both literature and input from relevant stakeholders. Nevertheless, there are some aspects regarding the methodology that should be discussed here.

Dream or reality?

Qualitative research is the best method to come to an understanding of a phenomenon through the experiences of those involved.[25] Therefore, qualitative research was the preferred method to gain insight in the concept of CRE. In addition to the results of the narrative review described in chapter 2, the conceptualization of CRE and the CREATE-tool are based on the input of professionals, rehabilitants and informal caregivers in the two qualitative studies described in chapter 3 and 4. During these qualitative studies the participants were asked to dream freely about what they thought an optimal CRE should look like. It is debatable if participants described their real dream for an optimal CRE during these meetings. It is suspected that most participants mainly described the current situation and the improvements regarding CRE they were currently working on. As a result, not all possibilities and dreams for a CRE were mentioned in these studies.

To obtain the most diverse input possible, many different stakeholders were included. As a result, developments in various organizations were included, and through the participation of experts in the field of rehabilitation, an attempt has been made to include future developments in the final concept. This does not mean that it includes all future developments in the concept of CRE. Given the rapid follow-up of research in the field of geriatric rehabilitation, and in particular eHealth, the concept of CRE should be a dynamic concept.

Participants selection

One of the methodological issues regarding the studies in this thesis is the sampling of the professional participants. The studies described in chapter 4, 5 and 6 all used the input of professionals in the data collection. Because these three studies selected participants within the same organizations, it was inevitable that some professionals participated in all three studies. This can have influenced the

results by strengthening the internal validity, however the results may be less generalizable.

In chapter 4 the participants described their perspectives regarding CRE and in chapter 5 they clustered the statements regarding CRE. The results of these studies were integrated in the CREATE-tool. Therefore, professionals who participated in all three studies could (partially) recognize their vision in the final concept of CRE and the CREATE-tool. In chapter 6 the use of the CREATE-tool was evaluated in a survey. Because participants in this study were able to partially recognize their own perspectives in the content of the tool, this may have influenced how they completed this survey. In particular, the questions regarding the content and relevance of the statements may have been assessed more positively.

In the final concept of CRE and the CREATE-tool the input from various stakeholders was combined with the results of the narrative review described in chapter 2. The qualitative studies described in this thesis used input from participants from many different organizations, as well as input from (inter)national experts. This has led to a rich conceptualization that shows a broad vision of CRE, and the final conceptualization cannot be traced back to input form individual participants. Therefore, it is expected that previous participation in studies related to CRE did not influence the results of the survey regarding the use of the CREATE-tool in Chapter 6.

Regarding the sampling of participants, the external validity is another methodological issue in this thesis. All participants were motivated professionals, rehabilitants and informal caregivers. The organizations participating in these studies operated mainly in areas with a high socio-economic status. In addition, the participants mainly had a Dutch cultural background, only in the study in chapter 4 there was input from an international group of experts. This thesis has not examined the external validity of the CRE concept, therefore the results should be interpreted with caution regarding generalization towards populations with a different (cultural) background.

Concept mapping

After the studies described in chapter 2, 3 and 4, a lot of information about relevant aspects had to be combined in a conceptualization of CRE. One of the most important factors of a CRE is the equality of stakeholders. Therefore, it was important that the three main stakeholder groups (rehabilitant, informal caregiver and professional) were involved in the development of the final conceptualization. After considering different methods, we opted for concept mapping to develop the final conceptualization. Concept mapping is a highly structured procedure which can be used as an exploratory consensus procedure for modelling conceptual frameworks based on specific elements and the input of relevant stakeholders.[26,27] A major advantage of concept mapping is that all participants provide their input individually, without participants influencing each other. The input of each participant counts equally in the final conceptualization. This has led to a rich conceptualization of CRE which combines evidence-based, expert-based and experience-based knowledge. Aiming at the equality of stakeholders in a CRE, the concept mapping methodology seems most suitable for shaping the final conceptualization of CRE.

CREATE-tool

In this thesis it was studied to which extent a team self-evaluation tool is feasible to support rehabilitation wards by implementing CRE. Therefore, a delegation from the interdisciplinary team participated in the study in chapter 6. In this study, the participants were assigned by the team manager to achieve a good representation of the team. The readiness for change of the participants, was not considered. It is conceivable that this could influence the results in the study in chapter 6. Participants characterized with a lower readiness for change are likely to fill in the tool more conservatively and will therefore come up with fewer ideas to improve the CRE during the team meeting. They will probably complete the evaluation questionnaire less positively because they see less need for change. While participants whit a higher readiness for change are likely to identify more areas for improvement and are more positive about the entire tool.

If the CREATE-tool is going to be used in practice, it is good to include the readiness for change of team members when selecting participants. An ideal mix of participants consists not only of a representation of different occupations, but

also of participants with different natures. In this way, an improvement plan for CRE on a rehabilitation ward can be developed with the broadest possible support, which can have a positive contribution to the implementation of this plan.

Implications and recommendations

Implications for practice

The conceptualization of CRE originated from a narrative review and qualitative studies and the effectiveness of the total concept is not yet studied. The effects of the use of the CREATE-tool on the care process and rehabilitation outcomes are still unknown, as are the effects on the satisfaction and burden of the informal caregiver and employees. Nevertheless, many aspects of CRE have already been individually studied and proven to be effective. Hence, the concept of CRE as described in chapter 5 has a lot of potential and should be implemented in geriatric rehabilitation.

This thesis (chapter 6) showed that the CREATE-tool can be used as a team improvement instrument. It can help rehabilitation wards implement and improve CRE. During the study described in chapter 6, each team identified several points for improvement related to CRE. Team members indicated that this included both quick wins and points that took more time to realize. The survey in chapter 6 showed that team members were enthusiastic about using the tool and thought it contributed to improving CRE on their ward.

This thesis did not investigate the optimal frequency of using the CREATE-tool. The advice is to formulate an improvement plan for the geriatric rehabilitation ward based on the results of the CREATE-tool. If all improvement points from this plan have been achieved, the process of the CREATE-tool can be started again. If these points have not been achieved within 2 years, it is recommended to start the assessment process with the CREATE-tool again. In this way teams can identify whether new areas for improvement have raised regarding CRE.

Implications for education

This thesis has identified some important points for the education of professionals. One of the most important aspects of a CRE is interprofessional collaboration. The best place to start interprofessional collaboration is at the start of the training of future professionals! If students are taught to collaborate beyond the boundaries of their own field during their education, this will have an impact on the collaborations during their working life. As one of the participants of the study in chapter 4 said, "this interprofessional education should not stop when professionals have obtained their diploma, but requires continuous education". Interprofessional team trainings are an excellent way to stimulate interprofessional collaboration during regular working days. These team trainings will strengthen the team spirit, allow professionals to learn from each other, improve effective communication, and help professionals find each other in the workplace.[28]

What this thesis has further demonstrated is the importance of the environment in which rehabilitation takes place. A stimulating and challenging environment can challenge rehabilitants to work on their rehabilitation outside therapy hours. It is good to emphasize this importance of the environment in the training of healthcare professionals. But even more important is the training of non-health care professionals involved in the design of rehabilitation departments. They should be aware of the importance of a challenging environment for rehabilitants and be trained in ways to achieve this. Healthcare professionals and non-healthcare professionals must be taught how to speak each other's language to achieve the best possible result together. A good example of this is the "Bij Ons" tool, in which healthcare professionals and architects work together to design a nursing home which gives residents with dementia a feeling of home.[29]

In a CRE, professionals work together in an interdisciplinary manner and all team members are jointly responsible for increasing therapeutic activities of rehabilitants. Many different disciplines work together in an interdisciplinary team, but the professional with whom patients spent the most time is the nurse. If nurses incorporate exercises in their daily contact with rehabilitants, this can increase therapeutic activities with almost one hour a day.[30,31] It is therefore important that these practice moments are regularly mentioned during the training of pro-

fessionals, and all professionals involved in rehabilitation must regard the nurse as a therapist.

Future research

This thesis brings a solid foundation for the challenging rehabilitation environment, but like any research, it raises further research questions. One of the research questions for this thesis was which aspects are important for a CRE and how can they be combined in a conceptualization. Now that this conceptualization has been established, it is important to conduct further research into the effectiveness of using the concept of CRE for quality improvement activities. As mentioned above, specific parts of this concept have already been studied. It is necessary to conduct further research into the effect of combining all these aspects. CRE is an extensive concept and many rehabilitation wards have implemented certain parts of this concept, which is why action research seems to be an appropriate method for further research.

The second research question of this thesis has resulted in a team self-evaluation tool. This thesis shows evidence that this CREATE-tool is helpful for rehabilitation wards to identify their areas for improvement regarding CRE. Further research can be conducted into the long-term effect of the use of the CREATE-tool on the CRE of rehabilitation wards. This requires an implementation study and could be part of the above-mentioned action research.

Regarding the methodology of the studies that have resulted in the CREATE-tool, some limitations have been mentioned above. These limitations raise new research questions. Geriatric rehabilitation is a rapidly developing field of interest in both clinical practice and scientific research. It is not certain that all these developments are included in the conceptualization of CRE developed in this thesis. Therefore, it is important that we remain alert to new developments and, if applicable, update the current conceptualization.

The studies in this thesis mainly took place in the Netherlands. Recent studies have shown that despite of a consensus definition, there are international differences in the way geriatric rehabilitation is offered and in inclusion criteria.[32,33] To increase the external validity of the concept, it is paramount to study to what

extent the current conceptualization is endorsed internationally and whether the developed CREATE-tool is feasible in other countries.

Completing the full procedure of the CREATE-tool is relatively time-intensive, which is why it is recommended to only do this once every two years. During these two years it is desirable to monitor whether CRE on a ward is developing in the desired direction. A short and quick checklist should be developed and evaluated for this purpose.

Results of both the CREATE-tool and the conceptualization point in the direction of involving rehabilitants and informal caregivers in the rehabilitation process. It is necessary to investigate how they can be involved in shaping CRE on a rehabilitation ward, as this is under studied. It should be explored whether the CREATE-tool can be further developed into a tool for rehabilitants and informal caregivers.

This thesis focused on inpatient rehabilitation. But not all patients receive inpatient rehabilitation. And even if they do, the rehabilitation starts in the hospital and continues after discharge in their home situation. All these phases of rehabilitation together ensure an optimal rehabilitation result, and aspects of a CRE are important during all these phases. It is therefore recommended that further research will be conducted into which aspects of CRE are relevant during hospital admission and during rehabilitation at home. This may lead to further research into possible adjustments to the CREATE-tool so that it can be applied in these settings.

Epilogue: the case of my grandfather

In the general introduction of this thesis, the case of my grandfather was introduced. My grandfather rehabilitated before the concept of a challenging rehabilitation environment existed. His treatment was mainly monodisciplinary and besides his therapy moments, he had relatively small challenges and exercises. Nevertheless, after ten weeks he was able to walk without a walking aid and independent in his activities of daily living. But he didn't cycle again and felt less confident walking on uneven paths.

With the current knowledge, I suggest that he may have achieved better rehabilitation results if his rehabilitation had taken place within a CRE. Would he have achieved a higher therapeutic intensity and felt more confident and even stepped on his bike again?

References

1. Harkins, L, Beech, AR. Examining the impact of mixing child molesters and rapists in group-based cognitive-behavioral treatment for sexual offenders. Int J Offender Ther Comp Criminol 2008;52(1):31-45.
2. Dorr, D, Honea, S, Pozner, R. Ward atmosphere and psychiatric nurses' job satisfaction. Am J Community Psychol 1980;8(4):455-461.
3. Beech, AR, Hamilton-Giachritsis, CE. Relationship between therapeutic climate and treatment outcome in group-based sexual offender treatment programs. Sex Abuse 2005;17(2):127-140.
4. Noordam, HG, D. . De LIVE-studie: een actie onderzoek naar sociotherapeutische leefmilieus in verpleeghuizen. Nijmegen: UKON; 2019.
5. Buijck, BI, Zuidema, SU, Spruit-van Eijk, M, et al. Neuropsychiatric symptoms in geriatric patients admitted to skilled nursing facilities in nursing homes for rehabilitation after stroke: a longitudinal multicenter study. Int J Geriatr Psychiatry 2012;27(7):734-741.
6. Everink, IH, van Haastregt, JC, van Hoof, SJ, et al. Factors influencing home discharge after inpatient rehabilitation of older patients: a systematic review. BMC Geriatr 2016;16:5.
7. Buijck, BI, van Eijk, MS, Zuidema, SU, et al. Determinants of quality of life in older adults after lower limb amputation and rehabilitation in skilled nursing facilities. J Am Geriatr Soc 2012;60(4):796-798.
8. Lee, DJ, Costello, MC. The effect of cognitive impairment on prosthesis use in older adults who underwent amputation due to vascular-related etiology: A systematic review of the literature. Prosthet Orthot Int 2018;42(2):144-152.
9. Vluggen, T, van Haastregt, JCM, Tan, FES, et al. Factors associated with successful home discharge after inpatient rehabilitation in frail older stroke patients. BMC Geriatr 2020;20(1):25.
10. van Dijk, M, Vreven, J, Deschodt, M, et al. Can in-hospital or post discharge caregiver involvement increase functional performance of older patients? A systematic review. BMC Geriatr 2020;20(1):362.
11. Houser, AG, Mary Jo; Redfoot, Donald L. Trends in Family Caregiving and Paid Home Care for Older People with Disabilities in the Community: Data from the National Long-Term Care Survey. Washington: AARP Public Policy Institute; 2010.
12. Plank, A, Mazzoni, V, Cavada, L. Becoming a caregiver: new family carers' experience during the transition from hospital to home. J Clin Nurs 2012;21(13-14):2072-2082.
13. Vielvoye, M, Nanninga, CS, Achterberg, WP, et al. Informal Caregiver Stroke Program in Geriatric Rehabilitation of Stroke Patients: A Qualitative Study. J Clin Med 2023;12(9):3085.
14. Kalra, L, Evans, A, Perez, I, et al. Training carers of stroke patients: randomised controlled trial. BMJ 2004;328(7448):1099.
15. Wachner, J, Adriaanse, MA, De Ridder, DTD. The effect of nudges on autonomy in hypothetical and real life settings. PLoS One 2021;16(8):e0256124.
16. Vandenbroele, J, Vermeir, I, Geuens, M, et al. Nudging to get our food choices on a sustainable track. Proc Nutr Soc 2020;79(1):133-146.

17. Beraldo, S, Karpus, J. Nudging to donate organs: do what you like or like what we do? Med Health Care Philos 2021;24(3):329-340.
18. Bucher, T, Collins, C, Rollo, ME, et al. Nudging consumers towards healthier choices: a systematic review of positional influences on food choice. Br J Nutr 2016;115(12):2252-2263.
19. Diamant, É, Perez, T, Drouin, O. Nudging interventions to improve children's sleep, physical activity and sedentary behavior: A scoping review. Prev Med 2023;173:107572.
20. Kraaijkamp, JJM, van Dam van Isselt, EF, Persoon, A, et al. eHealth in Geriatric Rehabilitation: Systematic Review of Effectiveness, Feasibility, and Usability. J Med Internet Res 2021;23(8):e24015.
21. Muellmann, S, Forberger, S, Möllers, T, et al. Effectiveness of eHealth interventions for the promotion of physical activity in older adults: A systematic review. Prev Med 2018;108:93-110.
22. Skjæret, N, Nawaz, A, Morat, T, et al. Exercise and rehabilitation delivered through exergames in older adults: An integrative review of technologies, safety and efficacy. Int J Med Inform 2016;85(1):1-16.
23. Zeng, N, Pope, Z, Lee, JE, et al. A systematic review of active video games on rehabilitative outcomes among older patients. J Sport Health Sci 2017;6(1):33-43.
24. Kraaijkamp, JJM, Persoon, A, Aurelian, S, et al. eHealth in Geriatric Rehabilitation: An International Survey of the Experiences and Needs of Healthcare Professionals. J Clin Med 2023;12(13).
25. Castleberry, A, Nolen, A. Thematic analysis of qualitative research data: Is it as easy as it sounds? Curr Pharm Teach Learn 2018;10(6):807-815.
26. Trochim, W, Kane, M. Concept mapping: an introduction to structured conceptualization in health care. Int J Qual Health Care 2005;17(3):187-191.
27. Kruskal, JW, M. Multidimensional Scaling. Thousand Oaks, California; 1978.
28. Doornebosch, AJ, Smaling, HJA, Achterberg, WP. Interprofessional Collaboration in Long-Term Care and Rehabilitation: A Systematic Review. J Am Med Dir Assoc 2022;23(5):764-777.e762.
29. UKON. Bij ONS: Samen werken aan een thuis; 2023. https://www.ukonnetwerk.nl/tools/bijons/. Accessed 09-02-2024 2024.
30. Skarin, M, Sjöholm, A, Nilsson, Å, et al. A mapping study on physical activity in stroke rehabilitation: establishing the baseline. J Rehabil Med 2013;45(10):997-1003.
31. Huijben-Schoenmakers, M, Rademaker, A, van Rooden, P, et al. The effects of increased therapy time on cognition and mood in frail patients with a stroke who rehabilitate on rehabilitation units of nursing homes in the Netherlands: a protocol of a comparative study. BMC Geriatr 2014;14:68.
32. Grund, S, Gordon, AL, van Balen, R, et al. European consensus on core principles and future priorities for geriatric rehabilitation: consensus statement. Eur Geriatr Med 2020;11(2):233-238.
33. van Balen, R, Gordon, AL, Schols, JMGA, et al. What is geriatric rehabilitation and how should it be organized? A Delphi study aimed at reaching European consensus. Eur Geriatr Med 2019;10(6):977-987.