# HOW DO THE CHARACTERISTICS OF CONTEXT INFLUENCE THE WORK OF FACILITATORS WHEN IMPLEMENTING A STANDARDISED EDUCATIONAL INTERVENTION TARGETING NURSING HOME STAFF TO REDUCE RESTRAINT IN DEMENTIA CARE?

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#### **Abstract**

This research is part of a larger study - a sequential mixed method education intervention targeting staff in 24 Nursing Homes (NHs) in Norway to reduce use of restraint and psychotropic drugs. Building on a previous successful intervention, we used the Promoting Action on Research Implementation in Health Services (PARIHS) prospectively to combine cluster randomized controlled trial, participatory action research (PAR) and ethnography to design and evaluate the effectiveness of 2 day staff education and 1 hour monthly coaching during 6 months in two rounds (12 x 2 NHs). In my research that is the primary focus of this thesis, four teams of eight facilitators facilitated the intervention and simultaneously participated in PAR to coconstruct knowledge of hindering and promoting implementation factors. A 'Creative Hermeneutic Knowledge Co- Production' (CrHeKCoP) model blending paradigmatic and epistemological assumptions from critical and participatory worldviews was created and used in spirals of 10 mini-cycles of actions to coconstruct knowledge of the implementation process.

#### Findings and implications

The CrHeKCoP- model enabled a critically creative approach to implementation as well as rigorous, transparent and authentic knowledge co-production based on multiple data sets from trial (n= 274), multi- step focus groups (4) and faciltiators' reflection notes (84). The overall results showed that restraint-use was significantly reduced in both the intervention group (p = 0.025) and control group (p < 0.001), with a tendency to a greater reduction in the control group.

The PARIHS framework was valuable in designing and evaluating a mixed method intervention approach in a Norwegian context. My research confirmed the framework's main elements. However, the findings point to some elements meriting further conceptualisation; first, the dynamism and reciprocal interaction between the elements. Second, to include individual staff member's learning skills and motivation as a fourth element. Third, the 'what's and 'how's of leadership practice that promotes organisational readiness for change. Fourth, assumptions of successful knowledge use as effective integration within organisations and their systems.

#### List of keywords

Implementation, education intervention, participatory action research, mixed methods, critical creativity, participatory paradigm, the PARIHS framework, restraint, nursing homes

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#### 1. Introduction to the thesis

This thesis is a part of a sequential mixed- method research project called Modelling and evaluating evidence-based continuing education program in dementia care (MEDCED) combining cluster-randomized controlled trial, participatory action research and ethnography to evaluate the implementation of a standardized education intervention targeting nursing home staff in Norway. The purpose is to assist staff in finding alternative person-centred and confidence building measures rather than using restraint and psychotropic drugs in residents living with dementia. In particular, this thesis aims to understand the hindering and promoting factors influencing if and how the learning from the intervention is put into action in the nursing homes. The theoretical framework 'Promoting Action in Research Implementation in Health Services' (PARIHS) (Kitson et al., 2008) is used prospectively to inform the design and evaluation of the intervention. Four teams of eight facilitators were engaged in Participatory Action Research (Reason and Bradbury, 2011) to simultaneously facilitate the intervention and participate in coconstructing knowledge of how and in what way the factors related to the context and facilitation influenced the uptake of the MEDCED knowledge. More specifically, we aimed to understand this from the perspective of the PARIHS framework and add clarity to warranted interrelations between the framework elements. Thus, together with the facilitators as my participatory co-researchers, I was hoping to contribute to increasing the framework's utility for international implementation purposes (Kitson et al., 2008, Pentland et al., 2011, Helfrich et al., 2010).

The Norwegian Dementia Plan – *making the most out of the good days* (Engedal, 2010, Norwegian Directorate of Health and Social Affairs, 2007, Directorate of Health and Care Services, 2013), a national strategy *Development through Knowledge* for knowledge translation and exchange in the municipal health sector (Helsedirektoratet, 2010), and a study<sup>1</sup> finding promising results in a relatively cost-effective education intervention in Norwegian nursing homes provide the backdrop for the study (Testad, 2010).

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<sup>&</sup>lt;sup>1</sup> Hereafter called 'the pilot study'

# Background and context for the research

#### Dementia and restraint generally, and in Norway in particular

Dementia is a major challenge for our society with currently 24.3 million people in the world and 71 000 people in Norway living with this diagnosis. The expected worldwide prevalence rise is estimated to reach 81.1 million in 2040, whereas the numbers for Norwegians are estimated to be approximately 135 000 (Directorate of Health and Care Services, 2013, Ferri et al., 2006). In Norway, 40 % of the total population living with dementia reside in nursing homes. According to recent information, they now constitute 80% of the total nursing home population (Directorate of Health and Care Services, 2013). The majority of the residents have severe functional impairments and complex needs influencing their ability to perform activities of daily living (Rokstad et al., 2013a), as well as neuropsychiatric symptoms (NPS) impacting on their quality of life; such as psychosis, anxiety, depression and agitation (Selbæk et al., 2007, Selbæk and Engedal, 2012).

Studies using the Neuropsychiatric Inventory (Cummings et al., 1994) have identified clusters of symptoms in nursing home residents living with dementia, such as agitation/aggression, psychosis, and affective symptoms like depression, anxiety and apathy (Zuidema et al., 2007). Based on a 2-year study following the course of dementia in 117 nursing home patients, agitated behaviours were found to be particularly persistent; this is in contrast to affective symptoms that seemed to decrease although apathy tended to increase (Wetzels et al., 2010).

In accordance with international studies showing that NH residents with cognitive impairment and high dependency are most likely to be restrained physically (Hamers et al., 2004, Bredthauer et al., 2005), Kirkevold et al found (2004) that the degree of dementia, dysfunction in activities of daily living (ADL) and aggressive behaviour in residents correlated positively with the use of restraint in Norwegian nursing homes (Kirkevold et al., 2004). Internationally, descriptions of physical restraint (PR) include any devices, equipment or aid designed to confine a resident's bodily

movement or free body movement to a preferred position, for instance bilateral bedrails, limb or trunk belts, and fixed tables on a chair or chairs that prevent persons from getting up (Evans et al., 2002).

Even though use of restraint has essentially been illegal in somatic health care in Norway, findings from a large survey in 2003 consisting of 1 398 Norwegian wards and 25 108 residents (corresponding to 60% of all residents in institutions for older people in Norway), showed that 78.8% of the wards reported that one or more of the following restraints had been used during the last seven days; physical restraint, electronic surveillance, force or pressure in medical examination or treatment, force or pressure in activities of daily living (ADL) during the last seven days. The most frequent use of restraint was related to ADL (61.3%), followed by medical treatment (49.8%) and physical restraint (38.4%) (Kirkevold et al., 2003). These findings prompted a national discussion that resulted in use of restraint being legally regulated in somatic health in Norway from 2009.

#### Use of coercion as regulated in the Norwegian Patient and Users' Right Act

From January 1st 2009 use of restraint towards Norwegian persons lacking the competence to give their informed consent is included as a supplementary chapter (Chapter 4A) in the Patients' and Users' Rights Act (Pasientrettighetsloven, 2006). To regulate the possibilities to provide somatic health care against the patients' will, the law has two main objectives. Firstly, to ensure that 'necessary health care' is delivered to avoid and prevent significant harm and secondly to prevent and limit the use of restraint. Whereas the main criterion is lack of competence to consent, other key criteria are; a) that failure to provide 'necessary health care' may significantly harm the patient's health, b) that alternative 'confidence building measures' and user-involvement have been carried out and evaluated as unsuccessful before restraint can be applied (Patient Rights act § 4A). All use of coercion has to be decided by health personnel in deliberation with other qualified health staff, be documented and reported to local health authorities.

#### Evidence informed strategies for treatment of agitation.

Despite limited evidence to support the effect and the risk of severe side effects, psychotropic drugs are often used to treat agitation and other neuropsychiatric

symptoms (Ballard and Corbett, 2010). Consequently, non-pharmacological interventions are recommended as the initial approach to treatment (Gauthier et al., 2010, Salzman et al., 2008) although several Cochrane reviews conclude that the effect of non-pharmacological studies like music therapy, massage and touch, validation, bright light therapy, Snoezelen and aroma therapy cannot be ascertained due to either lack of evident effect or methodological limitations (Rokstad et al., 2013a).

On the other hand, there is evidence of various adverse effects such as injuries, reduced psychological well-being or decreased mobility related to the use of physical restraint (PR) (Mohler et al., 2011). Recent findings from Cohen-Mansfield and colleagues (Cohen-Mansfield et al., 2012) also identified that significant reduction in physical non-aggressive and verbal agitation was obtained when care staff observed agitated residents' behaviour to first determine unmet needs. Thereafter they used the observations to decide upon non-pharmacological interventions which were individualized to the person's background, interest and capacity. Likewise, Chenoweth and colleagues concluded in an Australian trial that person-centred care and dementia-care mapping both seem to reduce agitation in people with dementia in residential care (Chenoweth et al., 2009).

Moreover, there is evidence supporting that user-involvement and shared decision-making have positive effects for both residents and staff. When persons with dementia are given the possibility to be involved in matters concerning their situation, this has been found to positively influence their personhood (Kitwood, 1997, Dewing, 2008), their experience of integrity (Andersson, 1994, Norberg, 1996), and well-being (Graneheim et al., 2001). Involving residents with dementia in shared decision-making has been reported to influence favourably the staff's job satisfaction and reduce risk of burn-out (Hallberg, 1995), whereas job satisfaction has been found to correlate positively to the well-being of patients with dementia in nursing homes (Edvardsson et al., 2008a). Restraint-free care should therefore be the aim of high-quality and person centred care.

#### What do we know of the use of restraint in Norway at present?

The Norwegian Health Authorities have recently (in 2011 and 2012) performed two countrywide supervisions of compulsory health care for patients in nursing homes, investigating the effect and practice following the law amendments on coercion in somatic health care from 2009. Reports of risk assessments from local health authorities were used to select approximately one quarter of the Norwegian municipalities (n=105) to undergo a combination of system audit and on-site observations in nursing homes. Due to the selection method, the findings are not representative for the average situation for the whole country. However, when compared with other national reports and observations, the Health Authorities argue that the findings 'in a good way' portray the professional, ethical and practical challenges Norwegian nursing homes and municipalities are experiencing in relation to the new regulations (Statens Helsetilsyn, 2013):18.

The investigation covered several elements in the care process related to compulsory health care; such as evaluating the ability to consent, identify potential resistance to necessary health care, efforts to find alternative strategies to coercion based on confidence building measures, and to assess whether the conditions for the implementation of compulsory health care were present. Overall, the findings revealed that the regulations were not satisfactorily practiced. Adequate and professional attention is necessary both within the municipal and nursing home leadership to ensure the legal rights for nursing home patients lacking the ability to consent.

The National Health Authorities concluded that use of coercion is still too frequent. Many of the Nursing Homes struggled to find alternative strategies to coercion. Breaches of the statutory requirements were detected in 89 (84%) of the municipalities, with little difference being found between 2011 and 2012. Several of the surveyed municipalities faced significant challenges in ensuring adequate management and control of the use of compulsory health care to patients in nursing homes (Statens Helsetilsyn 2012, 2013).

Related to the care staff, the findings showed that the staff had limited knowledge and skills related to issues such as; a) how to interpret and understand the regulations on compulsory health care, b) what the term coercion implies, c) how resistance could be identified and managed, d) how and when the patient's ability to give consent should be assessed, e) who should be responsible for carrying out such assessments. Furthermore, deficiencies were revealed in the translation of knowledge and workplace learning, as well as poor or lacking systems to register and follow-up on staff skills and training needs. Thus, due to the 'very serious' findings of coercion being applied to patients in nursing homes without adequate juridical assessment, a new national audit was programmed for 2014 (Statens Helsetilsyn 2013:18).

However, creating systems for knowledge translation and systematic workplace learning and development as well as securing access to the updated regulations in the law is not enough. The municipal and nursing home leadership need also to ensure and provide staff with sufficient conditions to attend to the above mentioned elements in the decision making process. As demonstrated in a recent Norwegian study, certain conditions are required for staff to avail of opportunities to successfully use alternative strategies, such as staffing levels, skill-mix, competence levels, and continuity among the staff (Gjerberg et al., 2009):641. The findings derived from interdisciplinary focus group interviews with staff (n=60) from five Norwegian nursing homes showed that staff were using a variety of strategies to avoid coercion; the most common being "deflecting and persuasive strategies, limiting choices by conscious use of language, different kinds of flexibility and one-to-one care" (op. cit p 632).

Successful applications of alternative strategies were found to depend on two main prerequisites. First, knowing the patients, their families and being familiar with their histories as a basis for creating a trusting relationship. Second, that the potential to carry out alternative strategies to coercion interrelated with how the nursing home organises their resources in terms of staff qualifications and their experience, in addition to the number of staff at work. The findings suggested that both the consciousness about, and the frequency of utilising restraint, varied with the staffs' level of formal education.

#### Care staff and person-centred care environments

The increased number of residents living with dementia will lead to a marked

increase in the need for care staff to work in nursing homes as a consequence of the ageing of society (Brunborg et al., 2012). Recruiting and retaining qualified staff in nursing homes in the future will be challenging. By the year 2020, a shortage of registered nurses is expected worldwide and the number is forecasted to be 20% below the projected requirements (Buerhaus et al., 2000). A shortage of health care workers in general, towards year 2030 is forecasted in Norway too (Texmon, 2005).

Internationally, work environment and job stress have been implicated in the nursing shortage (Shirey, 2006). Nursing homes in Norway constitute strongly gendered workplaces with physical and emotional demanding work which, despite a complex work organisation and a pronounced need for competence and experience among staff, is still regarded as relatively low status among health personnel (Jacobsen, 2005, Jacobsen and Mekki, 2011, Vike, 2004. Together, the forecasted shortage of registered nurses {Texmon, 2005 #326), high turnover rates {Cohen-Mansfield, 1997 #35}, and comparatively high long- term sickness absence in older people care services (Clausen et al., 2011), represent a threat to the quality of the care for residents living with dementia.

In a recent study among all employees with long- term sickness absence for eight or more weeks in the eldercare sector in 35 Danish municipalities, Clausen et al (2011) found that emotional demands, role conflicts, influence, quality of leadership and team climate were significantly associated with risk of long-term sickness absence. When adjusting for all the job demands and job resources using the Job Demands-Resources model (Schaufeli and Bakker, 2004, Bakker and Demerouti, 2007), influence constituted the strongest predictor of long-term sickness absence (negative association). The study implies that improvements in the psychosocial work environment contribute towards reduction in long-term sickness absence among staff in the eldercare sector in Denmark (Clausen et al., 2011). Correspondingly, the recent work of Gaffney in Ireland (2011, cited in McCormack et al 2013:279) identifies 'challenge', 'connectivity', 'autonomy' and 'using your valued competencies' as four essential elements of people flourishing in their work.

In the USA, Zimmerman et al (2005) found that organisational and psychosocial factors and physical environment, contributed to health and well-being of staff caring

for residents with dementia. In contrast, dissatisfying psychosocial working conditions may lead to psychological and physiological distress. A person-centred attitude was found to be related to satisfaction and perceived competence in providing dementia care was consistently associated with dementia-sensitive attitudes and job satisfaction.

In Sweden, Edvardsson and colleagues were able to demonstrate that the well-being of nursing staff was associated with the well-being of people with dementia in residential care settings. According to their findings, in settings where the staff reported high job strain and less positive caring climate, the prevalence of escape, restless and wandering behaviours in residents with dementia were significantly higher compared with settings having a more positive caring climate and lower job-strain (Edvardsson et al., 2008a). Therefore, as most Western countries are facing a shortage of staff in the health care services, strategies aiming to improve factors that can contribute to prevent long- term sickness absence and increase staff well-being seem to be the most viable option for increasing the potential to provide personcentred care for residents with dementia in nursing homes.

Person-centredness is, however, a fragile concept according to the conclusions in a recent evaluation of a substantial Person-centred Care Programme in services for older people in Ireland (McCance et al 2012, cited in (McCormack et al., 2013). These findings suggest that person-centeredness only occurs in person-centred cultures with "consistent care delivery, and effective care coordination, good leadership, a knowledgeable and skilled care team, systems-wide support for person-centredness and a flexible model of care delivery" (McCormack et al., 2013):3.

These findings are consistent with how the authors of the theoretical framework of Person-centred practice emphasise the importance of developing a culture to support person-centredness in defining that:

"Person- centredness is an approach to practice established through the formation and fostering of healthful relationships between all care providers, older people and others significant to them in their lives. It is underpinned by values of respect for persons, individual right to self- determination, mutual respect and understanding. It is enabled by cultures of empowerment that foster continuous approaches to practice development" (McCormack et al., 2013)

The Person–centred practice framework highlights the relationship between the care environment and prerequisites that focus on the attributes of the practitioners such as; professional competency, interpersonal skills, job-commitment, ability to demonstrate clarity of beliefs and values and a knowing self (McCormack and McCance, 2010, McCormack et al., 2013). As expressed in the definition of person-centredness, it is essential to pay attention to the context, as well as the creation of a culture to support person-centredness.

#### Practice Development and human flourishing

Consequently, leading scholars in the Practice Development (PD) movement in the UK argue that managers and policy makers have to pay attention to the growing body of evidence showing that there is 'a direct connection between staff well-being and person-centred outcomes' (McCormack et al., 2009a, McCormack et al., 2013). Adopting the principles of 'Collaboration', Inclusion and Participation' as the primary methodological position (McCormack, 2013:280), the ultimate purpose of practice development is argued to be 'human flourishing' for all. The concept of human flourishing is explained by the moral perspective suggested by Aristotle that "human flourishing occurs when a person is concurrently doing what he [sic]ought to do and doing what he wants to do" (op.cit:278).

Thus, in order for health care practitioners to flourish they need to work in care environments that allow them the possibility of performing the evidence-informed actions they ought to do. At the same time they should be provided with sufficient contextual conditions/resources to enable them to act in a way that is congruent with their professional and ethical principles of good quality care. Consequently, the implication for managers and politicians is to value and strive to create workplaces with the capacity of enabling their care staff to flourish. According to the PD-scholars, the following characteristics are essential enabling workplace conditions:

- Respect for all persons;
- Cultures that value feedback, challenge and support;
- Commitment to transformational learning;
- Leaders who possess the skills of enabling facilitation;

- Organisations with a person- centred vision;
- Strategic plans that support person- centred and evidenceinformed cultures of practice;
- Continuous evaluation of effectiveness:
- Equal valuing of all knowledge and wisdom (McCormack et al., 2013):278-279.

Similar positions are echoed in the conclusions of a recent Norwegian study examining the kind of alternative strategies and contextual conditions that nursing home staff considered important to prevent coercion. Based on findings indicating a mismatch between the ambitions in the legislation regulating coercion and the resources provided, Gjerberg and colleagues state that:

"...the results illustrate that there is no objective situation where things just happen, but a moral space where both structural conditions and individual clinical encounters are critical to how the situation develops. Denying the influence of structural conditions, for example, through idealistic legal standards, is probably only to bury one's head in the sand.' (Gjerberg et al., 2013):641.

In conclusion, the published evidence and theoretical frameworks imply that the attitudes the staff hold towards people living with dementia, the continuing education and practice development they receive to provide dementia care, the resources allocated, the distribution of skill-mix in the care staff the quality of leadership and the culture of the work environment, are all factors influencing not only the health personnel's own well-being and job satisfaction (Zimmerman et al., 2005, Testad et al., 2010b) but also the ability to flourish (McCormack et al., 2010, McCormack et al., 2013, Titchen and McCormack, 2010). These workplace characteristics are also important for the possibility to create good, person-centred and restraint–free care for persons living with dementia in nursing homes (Gjerberg et al., 2013, Koczy et al., 2011, Edvardsson, 2008, Edvardsson et al., 2008a, Testad et al., 2010a).

My thesis therefore engages with the anticipation that education interventions in nursing homes will impact positively on staff's well-being and job satisfaction provided that they are; a) based on the philosophy of person-centred care, b) the aim is to increase the potential to base care decisions on confidence building measures

and user-involvement rather than restraint. Consequently, this will influence positively on reducing the use of restraint and psychotropic drugs among nursing home residents living with dementia and long term sickness absence among staff.

In order to understand the use of restraint in a Norwegian nursing home population, and before outlining the hypotheses and research questions for the thesis, I will describe how health care for older people is organised and also describe the Norwegian nursing home population.

#### The Norwegian municipal health care system

Norway is a mountainous and geographically extensive country with a dispersed population of around 5 million inhabitants. Presently, there are 429 municipalities organised in 19 regions/counties. The municipalities vary in size from 300 to around 500 000 inhabitants, the average municipal population being around 5 000.

Health care is publicly funded and is, with exception of hospitals, a municipal responsibility. The overall policy supported by all political parties, claims that all citizens should be entitled to receive the same quality health care from their home municipality (Ministry of Health and Care Services, 2014) provided either through home based care, or in institutions for long term residential care. The institutions for long term care are expected to be close to the patients' home municipalities. Due to the geographically dispersed population and the amount of small municipalities, this represents both an economic and infrastructure challenge. In addition, having the largest percentage of beds in nursing homes' facilities per capita (Jacobsen and Mekki, 2011, Statistics Norway, 2014), mainly, and more than in any other OECD country, the care for sick older people in Norway takes place in nursing homes (Romøren, 2008, Jacobsen and Mekki, 2011).

# Nursing homes and the nursing home population

In 2012, there were 41 732 beds in nursing homes, and most of them in long term care (Statistics Norway, 2014). Presently, approximately 97% of the Norwegian nursing homes are publicly funded and run by the municipalities. The costs are mainly covered by taxation, although the patients also have to contribute by around 80% of their pension. The patients, however, only contribute to around 10% of the total nursing home budget. This is a comparatively low percentage in regard to

OECD countries like the Netherlands and Germany (Jacobsen and Mekki, 2011, OECD Health Data Norway, 2013).

Compared to most other European countries, the staff coverage in Norwegian nursing homes is more than double. Although the general coverage of nurses is well above the OECD average with 12.9 per 1 000 inhabitants compared to OECD figures of 8.7<sup>2</sup> (OECD Health Data Norway, 2013), the figures should be regarded with caution because the Norwegian data on skill mix and qualification related to the nursing home staff is still insufficient. Nevertheless, it is anticipated that the number of unskilled workers in nursing homes and older people's care is too high (Jacobsen and Mekki, 2011). According to Statistics Norway, based on yearly reporting from all institutions and organisations in every municipality, the percentages of man-labour year in the care services (both institution based and home-based care) for year 2012 were 33 % registered nurses (RN) or equivalent (including for example a few occupational therapists, but mostly RNs), 41 % Licenced practitioner nurses/auxiliary nurses ('hjelpepleiere') and 26% unskilled care workers ('pleiemedhjelpere') (Statistics Norway, 2014).

#### Health care provision and quality surveillance

The responsibilities for organising and running the long term residential care facilities lie within the municipalities. Nonetheless, the national authorities decide not only the legislation and quality regulations, but also strategies and action plans that the municipalities have to meet. Sometimes money is allocated and earmarked to follow national initiated reforms or action plans, but not always. The same applies to other public service areas such as social services and education. Consequently, the political and administrative management have the challenging task of securing their inhabitants services according to the nationally agreed strategies and decisions.

Within the municipal health and care sector, the Norwegian Health and Social Directorate co-ordinate, survey and assist the knowledge translation and implementation processes connected to new strategies and reforms in terms of

<sup>&</sup>lt;sup>2</sup> It is important to note, however, that the comparability of data on nurses is limited, due to the inclusion of different categories of nurses and midwives in the data reported by different countries (OECD health 2013).

information and education campaigns, strategic resource allocation etc. While the responsibility to survey and control the legal and quality aspects are decentralised to the county health authorities, as a part of a top-level strategy, from January 1<sup>st</sup> 2011, a new initiative to ensure the provision of good quality nursing and care services throughout the country was established. Also according to this strategy and following a parliamentary White Paper No. 25 (2005-2006) ("Omsorgsmelding) the five regional centres for Care Research were given the responsibility to supervise and co-ordinate collaboration with the new Development Centres in their region (Utviklingssenter for sykehjem og hjemmetjenester, 2011)

#### **Centre for Development of Institutional and Home Care Services**

With the vision "Development through knowledge", one Centre for Development of Institutional and Home Care Services (CDIHCS) was established in each of the 19 counties in Norway, plus one specifically for the Sami population in the north. The development centres' primary objective is to act as the driving force for expertise and quality in nursing home and home based care. The initiative is mainly financed by means of a grant from the Norwegian Directorate of Health and the host municipalities contribute to a varying degree. All centres are given the same duties and responsibilities within the following goals and initiative objectives:

#### **Secondary Goals**

- 1. Driving force behind professional and service development within locally and nationally defined target areas
- 2. Enabling the further development of work experience for pupils, apprentices and students
- 3. Encouraging the development of staff expertise
- 4. Organising research and development in health and care services

#### **Initiative objectives:**

- To stimulate committed cooperation across educational institutions, municipalities, county administrators and the state.
- To support good local initiatives to improve quality by giving financial subsidies to selected municipal units in each county.

• To stimulate the sharing of experience and knowledge between municipalities both within the county and nationally" (Utviklingssenter for sykehjem og hjemmetjenester, 2011)

In addition to being expected to take part in nationally initiated implementation strategies as part of their yearly funding, the CDIHCS centres are expected to apply for extra grants to undertake development work and participate in research activities. However, due to the decentralised structure, the centres experience a growing demand to participate in nationally defined and initiated knowledge translation and exchange strategies.

#### Vehicles for change and development in Norway

The national dementia strategy from 2007 – 2015 (Norwegian Department of Health and Social Affairs 2007) may serve as an example of how the different political, administrative and professional parties interact and influence the development of health policies and practice in Norway. The current dementia strategy was initiated by professional worries related to the state of dementia care and the expected increase in people living with dementia in the years to come. This was followed by a comprehensive multi-professional project led by the Norwegian Health Directorate, before finally resulting in a strategic action plan outlining specific requirements that all municipalities have to fulfil. The municipalities' implementation progress and results are surveyed on a yearly basis by the local health authorities. The Development Centres for Homebased and Institutional Care are expected to carry out nationally initiated education and development work related to the strategic areas in the plan.

#### The Norwegian Dementia Plan - 'Making the most out of the good days'

In agreement with all political parties, the Norwegian government proposed a care plan for persons living with dementia that were set into action from 2007 (Engedal, 2010). Aiming to improve the care for persons living with dementia, their families and professional carers, this combined strategy and action plan consists of five main strategies to meet the future challenges related to an estimated growth from 70 000 till 140 000 Norwegians expected to be living with dementia within the next 35 years. Based on a comprehensive report on the current situation for dementia care named "Forgetful but not forgotten" (Norwegian Directorate for Health and Social

Affairs 2007) the following five main strategies have been set out to meet identified challenges:

- 1) Quality of care through development measures and research
- 2) Raising the knowledge and skills of professional caregivers and increase the numbers of professional caregivers working in the municipalities
- 3) Improving collaboration between professions
- 4) Support 'active care', such as day care programmes of various kinds
- 5) Support partnership between families and professional caregivers working in the municipalities.

In addition, it is stated that in 2015 all Norwegian municipalities should have established services in the following three prioritised areas:

- 1) Have a multi-professional dementia resource team offering diagnostic assessment in a collaboration between the family physician and the dementia team
- 2) Offer day care respite facilities/programmes and education programmes for family carers in so called 'family-carers' school'
- Provide continuing educational programmes for professional caregivers in all municipal care facilities

A total sum of approximately 3.8 million Euros has been allocated to meet these strategies. Additional money will be allocated to perform a research based and independent evaluation in 2015. The Development Centres for Homebased and Institutional Care play a substantial part in providing the continuing education programmes to increase the skills and knowledge of dementia among health care staff in their regions.

#### The MEDCED project

To address the identified deficiencies related to compulsory health care and coercion for nursing home patients (Statens Helsetilsyn 2012;2013) and placed within the Dementia plan and the strategy for Development Centres for Homebased and Institutional Care, The Center for Care Research in Western Norway succeeded in securing funding for a mixed method study to a) revise and retest a recent

Norwegian study of an education intervention targeting nursing home staff (Testad, 2010), and b) study promoting and hindering factors that influenced facilitation and implementation of the intervention. In Testad's study, hereafter called the pilot study, the educational content was based on the principles of person-centred care. The content covered most of the areas that the Norwegian Health Authorities found were less known and used related to compulsory health care in nursing home residents.

Attending to the warranted and identified need for international testing, the Promoting Action on Research Implementation in Health Services framework - PARIHS (Kitson et al., 2008, McCormack et al., 2002b) has been used prospectively, when designing the details of the MEDCED implementation. PARIHS also acted as a guiding framework during the research period.

The MEDCED study employs mixed-method design combining cluster- RCT, participatory action research (PAR) and ethnography. The PAR activities took place both pre-, per- and post-intervention. After the follow- up trial measures were done, and based on maximal heterogeneity of the quantitative results, two post- doc students performed ethnographic field studies in six of the NHs. In the methodology chapter I present further details of how the three strands were sequentially mixed throughout the study, as well as descriptions of the four teams of eight facilitators that participated in dual roles of delivering the intervention and acting as my coresearchers in the PAR strand of the study. The sequentially mixed design is also illustrated in figure 4.

Although my PhD study only represents one part of the whole MEDCED study, it is interwoven with and reciprocally influences and is influenced by the worldviews and research strategies developed by our research team. For instance, decisions made in my study impact on the RCT and ethnographic study and vice versa. The same applies to the analysis process post-intervention. In this thesis I will therefore initially describe the aims and hypotheses for the whole study, before outlining the details of methodology and data collection methods and findings in my doctoral studies. My research is done in participation with the eight facilitators. I therefore mostly refer to the interpretations and findings in plural forms as 'our' rather than

'mine' event though I have had the main responsibility in designing, organising and analysing the research.

# Aims, theoretical framework, hypotheses, and research questions

The overall aim of the MEDCED project is to design, implement and carry out a cluster- randomized trial in 24 nursing homes in Western Norway to evaluate the effect of an educational intervention in reducing the use of restraint and psychotropic drugs in residents living with dementia. In addition, hindering and promoting implementation factors related to context and facilitation are studied using the PARIHS framework prospectively. Post-intervention and based on trial data, ethnographic field studies are performed in eight selected nursing homes.

Our hypotheses, derived from evidence from the pilot study (Testad et al., 2005, Testad et al., 2010a, Testad et al., 2010b), suggest that competent use of a 7-step decision making model underpinned by philosophies of person-centred care and knowledge based understanding of agitation (TFT- model<sup>3</sup>), is an efficient tool in helping staff to reduce or prevent use of restraint in nursing home residents with dementia. We anticipate that use of restraint is an unwanted strategy applied by the care staff in the absence of alternative person-centred and confidence building strategies. Thus, a decrease of restraint and agitation in patients is likely to reduce stress and increase staff well- being. Based on reports from staff in the pilot study, the decision-making model is easy to understand and reflects key-elements of the interactions between staff, residents and their relatives (Testad, 2010).

The TFT-model is being implemented through a cost effective approach consisting of:

- a. A two-day seminar underpinned by philosophies of person-centred care and knowledge based understanding of agitation in patients living with dementia
- b. A follow-up one hour monthly group coaching over six months at the workplaces for all the care staff in the ward and their leaders. The aim of the coaching is to reinforce the seminar -education and facilitate the staff members' use of the TFT- model when caring for residents with dementia in

<sup>&</sup>lt;sup>3</sup> TFT is an abbrevation for "Tillitskaping Framfor Tvang" meaning "Confidence building measures rather than Restraint"

their nursing home wards. Before the coaching sessions, the care staff is asked to agree on which case related to use of restraint in one of their residents that they bring to reflection.

c. Between the coaching sessions staff is asked to keep a care staff diary noting information of relevance to achieve a fuller understanding of the person's needs and reactions to treatment, as well as the relationship with the care staff and other persons significant to the resident in focus. The diary notes are used as part of the follow-up coaching session.

Based on these considerations, the following hypotheses have been proposed:

#### Hypothesis A:

Education and training of nursing home care staff using the TFT- model will improve the well-being of nursing home residents living with dementia, through a decrease in use of restraint, agitation and psychotropic drugs.

## Hypothesis B:

Education and training of nursing home care staff using the TFT- model will improve the well-being of nursing home care staff, through reduced stress and increased job satisfaction.

Thus, the aims are: 1) To confirm or reject hypotheses A and B. 2) Add to the existing knowledge base on recommendation for knowledge translation and implementation research in clinical practice using the PARIHS framework prospectively (Helfrich et al., 2010).

My PhD connects to the second aim exploring in depth how characteristics of context in the nursing homes impact on the facilitator's role and performance when implementing the standardised education intervention targeting the staff and their leaders. PARIHS is used both as a conceptual and theoretical framework to guide the educational intervention design and process, as well as the evaluation of how the conceptual elements of context and facilitation interrelate and interact related to the standardised intervention. PAR (Reason and Bradbury, 2008) is used as a

collaborative and participatory approach working with the facilitators shaping their educational role related to different contextual factors in a total of 12 Nursing Home (NH) wards. More specifically the objectives for the PAR study are to:

- a) Generate knowledge of how and in what way factors related to the context and the role of facilitators influence the Educational intervention in the MEDCED study.
- b) Understand the factors that enable or hinder successful uptake of the TFT-model in practice and in particular, how these factors can be understood from the perspective of the PARIHS framework.

The PAR approach draws on philosophical inspiration from phenomenology and existentialism (Østerberg, 1993, Sartre, 1956, Husserl, 1997). It is conducted using a combination of a practical and transformational approach which is respectively situated in paradigms of interpretive and critical creativity (McCormack & Dewing 2012). We have acted on the following hypotheses in our participatory research activities:

In a situation where external facilitators are implementing a standardised intervention of a decision-making model targeting nursing home staff, and the facilitators are not familiar with the decision-making model, nor the educational content and methods they will be using, successful facilitation of the Educational intervention can be achieved by organising the intervention in two phases and involving the facilitators in a combined strategy of:

- a) Action learning related to development of educational tools and methods, as well as facilitated reflection informed by the PARIHS framework concerning their role and performance during the intervention process
- b) Participatory action research to critically reflect, debate and construct knowledge of how the factors that enable or hinder successful uptake of the TFT- model in the nursing homes can be understood from the perspective of PARIHS.

## My personal account of background and motivation for the research

I qualified as a Nurse in 1980. With the exception of 5 years working as an RN, I have primarily worked in different parts of the Nursing Education System both as a teacher, manager, organiser and curriculum developer. In recent years I have been heading several practice development projects merging education, and the Specialist-and Municipality Health Services. In addition, I have participated in several white paper and strategic plan committees appointed by the Government and Health Directorate; among these in a 'professional follow-up group' connected to the Dementia Care Plan –"Making the most out of the good days" from 2007 – 2011, and the group that created the national strategy for Development Centres for Homebased and Nursing Home Care.

Since 2008 I have participated in establishing a new Centre for Care Research in Western Norway, in which I have been employed since then. As part of this role I had the main responsibility to supervise the four Development Centres in our region. Among other tasks, I organised three yearly co-operation conferences between these CDIHCS centres and our Care Research Centre. Thus, when I initiated the present research project and invited the development centres to participate as facilitators we could build on an already established relationship.

However, our roles had to change from 'supervisor and supervised' to participating researchers. None of them had previously participated in action research projects. Although we in the pre-intervention phase had specifically discussed and defined ourselves as participant researchers in the formal contracts to regulate our cooperation, by the way they spoke, I recognised that the facilitators perceived the relationship more in terms of me and my fellow colleagues at the research centre as 'you, the researchers' and 'we, the practice developers facilitating the intervention'.

As far as possible I have attempted to be cognisant of this. To this end I found that being enrolled in a formal PhD programme and referring to my role and obligations as a student helped me to underline the change of position. Not least in underlining

the fact that 'we' and not 'I or you' should co-create knowledge from our different positions in cycles of planning - acting - doing - and reflecting throughout the project. However, I think the fact that we were building on a previous relationship and mutually trusted our good intentions, made it possible to address difficulties and worries from the outset. Through this we could create a safe and flourishing space for all of us.

In my reflection notes and also in the minutes from reflections with the two postdocs that acted as my assistants during workshops and focus group interviews, I perceived a gradual shift during the course of the research project in the way the participants talked of themselves as facilitators and researchers. Their transition to the research role is particularly evident in the creative hermeneutic co-creation of knowledge that took place post-intervention.

#### Structure of the thesis

In chapter one I have presented a brief context for the study and the present state of research into the field of dementia and restraint. I have given an overview of the MEDCED study and described my personal motivation for engaging in the research. In chapter two I consider the conceptual and methodological research status of implementation research by reiterating a recent integrative review of knowledge translation, exchange and integration in nursing and health care. The rationale for the MEDCED intervention is presented in chapter three. Firstly, by describing the underlying assumptions in the pilot study on which the MEDCED intervention is built. Secondly, by outlining the theoretical foundation, as well as the organisation, content and structure of the current study. I also make clear my particular responsibilities related to my doctoral studies. The worldviews, epistemologies and methodologies underlying and guiding my research are discussed in chapter four. My choice of participatory action research and analysis strategies is argued. I also discuss how I worked the balance between exploiting and bracketing my preconceptions to enable openness and reflexivity in the participatory action research process.

Chapter 5 and 6 describe the ongoing Action Cycles and mini-cycles of actions, reflections and knowledge co-production throughout the study; in Action Cycle One (Chap 5) I describe methods and results from five mini-cycles of preparing the

facilitation and the intervention content. The creative hermeneutic processes of coproducing knowledge of promoting and hindering implementation factors are depicted in five mini-cycles in Action Cycle Two (Chap 6).

In chapter 7, I reflect on how our findings from the PAR study may contribute to increase the prospective utility of the PARIHS framework for implementation purposes. The chapter ends by depicting how the lessons learned from the MEDCED findings will be translated into a proposal to the Research Council of Norway. The aim will be to engage with relevant stakeholders to continue the search for promising structures for innovation and practice development in the Municipal health service.

Finally, in chapter 8, I frame the critical appraisal of the PAR study and my conduct within a broadened bandwidth of validity concerns that Reason & Bradbury (2011) purport should guide critical reflections around questions about relationships and practical outcomes, as well as extended ways of knowing, purpose and enduring consequences of action research. I also reflect on our choices of mixing methods in the MEDCED study.

# 2. Understanding aspects related to knowledge translation, exchange and integration in healthcare and nursing

#### Introduction

Implementation of evidence- informed knowledge into healthcare and nursing is difficult. Despite an increasing amount of primary and review studies in the field, it still remains uncertain how and under what conditions change strategies and interventions most effectively can be translated and exchanged to health professionals and integrated in the organisations where they work (Pentland et al., 2011, Grol, 2005). However, since Kitson et al wrote their seminal paper in 1998 challenging the dominating 'linear models' (Best et al., 2008) that regarded knowledge transmission as a one way process of knowledge transfer and research uptake, most scholars within the field today acknowledge the need for establishing interpersonal and collaborative networks of researchers and professionals that actively engage in finding ways to contextualise evidence—informed, experiential and theory based knowledge to the local practice settings (Best et al., 2008, McCormack et al., 2013, Pawson, 2013).

The Promoting Action on Research Implementation in Health Services (PARIHS) which is central for my research reflects these elements, as well as the complex interaction between contextual factors and the different actors. The framework was introduced by Kitson et al. (Kitson et al., 1998, Kitson et al., 2008) as a more viable way of understanding the knowledge application in nursing practice than the predominantly linear models advocated for evidence based practice at that time. Several research studies have since then confirmed the face validity of this model (Rycroft-Malone2010).

The same applies to the other most used framework in nursing; the Knowledge – to - Action (KTA) framework (Graham et al 2006). Nevertheless, two recent reviews have recognised the potential to increase the value of PARIHS by more focused research into identifying the specific methods that allow the elements of evidence, context and facilitation to interact in complex health settings (Pentland et al., 2011, Helfrich et al., 2010). For the KTA, more clarity is warranted with regard to the practical processes that enable the action cycles of knowledge adaptation and barrier-

assessment. Related to the overall implementation field, Pentland and his colleagues (2011) concluded their integrative review by stating that KT and KE literature still lack robust and high level evidence to support design and implementation strategies in health care organisations.

Thus, for this thesis, instead of doing a traditional literature review I have found it purposeful to update the review from Pentland et al from September 2009 to December 2012 for three reasons. First, due to the obvious advantage of using review strategies that have proven useful to examine literature concerning KT and KE methods and their use in healthcare organisations. Second, because this approach also made it possible to review a broader scope of relevant literature than otherwise possible for one person within the limits of a PhD thesis. Last, but not least, because of the learning aspect of doing a comprehensive review within a specific methodological approach modified to encompass the broad and diverse scope of literature characterised by research in the nursing field.

The chapter starts by presenting an overview of the purpose and definition of reviews. Thereafter the methods and findings from the original and the current review are presented in the same order. Firstly, I refer to the methods, findings and conclusion by Pentland et al. Secondly, the method of reiteration and adaptation of their methods and search strategies are described. Thirdly, I present and discuss the findings from the current review as confirming, contesting or additional to the ones described by Pentland and his colleagues. I conclude by suggesting that further research resources in this field should prioritise realist evaluation and action oriented research based on partnership models between researchers and stakeholders on different organisational levels.

# The purpose and definition of reviews

To inform nursing practice and health policy strategies and in keeping with the increasing amount of nursing research over the last decades, different types of reviews have tended to replace the role of primary research studies (Evans and Pearson, 2001, Marchal et al., 2013, Barnett-Page and Thomas, 2009). Most of the current review methods have a common purpose in searching to increase the generalisability of a phenomenon. However, despite sharing some similarities,

Whittemore and Knafl argue that each method has a distinct purpose, sampling frame, definition and type of analysis (Whittemore and Knafl, 2005).

Meta-synthesis, thematic synthesis, meta-studies, formal grounded theory, metanarrative, framework synthesis, critical interpretive synthesis and meta-ethnography are all methods that have been developed to synthesise findings from qualitative research. Within these methods, the approach to analysis and the level of interpretation varies. According to Barnett- Page & Thomas (2009), many of the differences in approach can be explained by the given method's epistemology. When identifying and exploring methods for synthesising qualitative research, despite finding a number of methodological and conceptual links between the particular approaches, they argue that contrasting epistemological positions could explain differences related to issues like quality assessment and the extent of iteration. Thus, they conclude that methods for qualitative synthesis broadly fall into 'realist' or 'idealist' epistemologies, arguing that the aim of the systematic review should guide the type of method to choose (Barnett-Page and Thomas, 2009). 'Idealistic' approaches are likely to use more iterative searching, generally with less clear and a priori quality assessment procedures tending to assess the quality of contents rather than methods. Explorative questions are used to problematise the literature resulting in a complex synthesis output that may require further process of interpretation by end users. This, in contrast to the output from 'realist' approaches, that generally aims to produce directly applicable information to policymakers and those responsible for designing interventions. The search and review methods in 'realist' approaches are more linear in terms of the quality assessment being based on a clearer and more well-developed a priori procedures not problematising the literature (Barnett-Page & Thomas, 2009, table 1, p 9). However, all the qualitative approaches share the common objective of synthesising findings from individual studies into an overarching framework, or a new theory of the studied phenomenon (Whittemore and Knafl, 2005) b, p 547).

Approaches to increase the generalisability of quantitative studies encompass *Meta-analysis* and *Systematic reviews*. *In 'Meta-analysis'*, the evidence is reviewed using statistical methods to calculate an overall effect size from multiple and as similar

primary studies as possible. 'Systematic reviews' combine the evidence of multiple studies related to a specific clinical problem and aim to inform clinical practice of the best evidenced treatment or guidelines in specific situations.

Responding to later years evolvement of complex interventions tending to be increasingly pragmatic and including synthesis of qualitative evidence based on the perspective of patients and the public (Noyes and Hayter, 2013), several approaches are described to guide reviews that seek to combine evidence from both qualitative and quantitative study. These approaches aim to exceed questions of 'what works' and 'what is the effect size'. Alternative ways of exploring the nature and impact of complex interventions are suggested, including the process of distinguishing the mechanisms that contribute to the success or failure of different kinds of complex interventions (Barnett-Page and Thomas, 2009, Gough et al., 2012, Sandelowski et al., 2012). Consequently, the qualitative and implementation method group of the Cochrane Collaboration have recently launched the RAMESES publication standards for reporting realist syntheses and meta–narrative reviews (Wong et al., 2013b, Wong et al., 2013a).

According to the RAMESES group, *realist synthesis* is a theory driven approach summarising questions of 'what works for whom in what circumstances, how and why'. Philosophically, the methods used are rooted in realism based on the combination of three social science principles stating that; 1) 'causal explanations are achievable', 2) 'reality is mainly an interpretative reality of social actors', 3) 'social actors evaluate their social reality' (Rycroft-Malone, 2010):3. A realist synthesis thus aims to describe and understand as many as possible of the influencing contextual mechanisms having affected the actual outcomes. This is done by comparing how interventions or programmes were supposed to work, with the empirical evidence reported from the actual studies. By this approach, the objective is both to explain and provide guidance to policymakers of contextual changes and resources that might prove successful to "most likely trigger the right mechanism(s) to produce the desired outcomes" (Wong et al 2013 b: 3). Rycroft-Malone and colleagues (2012) argue that not only does a realist based approach offer a strategy that exceeds the critiqued limits of conventional systematic review methods that are

found to be too specific and inflexible to capture the evidence about the complex and multi-faceted nature of knowledge exchange strategies and interventions for evidence-informed healthcare and nursing. Due to the identification of the underlying causal mechanisms and the exploration of how these work under what conditions, Rycroft-Malone and colleagues (2012) also argue that the realist review approach is intuitively appealing when trying to understand and explain the interplay between the complex, dynamic and multi-faceted contexts and the interrelated causal mechanisms underlying implementation activity in health services (Op.cit, p 2).

#### The purpose of the integrative review

The *Integrative review* is among the approaches that allow for including findings from diverse methodologies in the same search strategy. However, the purpose of the integrative review is varied. Examining concepts, definitions and theories is comprised alongside revision of evidence and investigation of methodological issues concerning a particular topic. Thus, all past empirical and theoretical literature should be summarised to provide a more comprehensive understanding of a particular phenomenon. Due to the integrative review allowing for simultaneous inclusion of findings from diverse methodologies like experimental and nonexperimental research, several authors have argued that the integrative method might be beneficial for the nursing profession. In addition to combining data from empirical and theoretical literature, Whittemore and Knafl (2005) point to the possible contribution of including a wider range of research results to cover the depth and breadth of evidence- based practice and policy decisions in nursing (Whittemore & Knafl, 2005). Consequently, this variety of perspectives on a phenomenon or concern is suggested to better answer relevant questions for nursing practice and nursing science (Kirkevold, 1997, Evans and Pearson, 2001).

However, the risk of bias and inaccuracy may be increased when interrogating the diversity of literature possibly involved in integrative reviews. Because the primary studies are based on a variety of methodologies, there is also a great variation in the types of data extracted for the integrative review (Whittemore and Knafl, 2005). In order to reduce these risks and enhance the rigour of the review process, Whittemore and Knafl have developed a modified version of Cooper's general review. The

adapted framework encompasses stages of problem formulation, literature search, data evaluation, analysis, and the final presentation (Cooper, 1998). In Whittemore and Knafl's (2005) modified guidance, specific issues related to integrative reviews are addressed, such as specifying the review purpose, searching the literature, evaluating data from primary sources, analysing data and presenting the results. Data analyses methods used in qualitative research are suggested to enhance the rigour of combining diverse methodologies, as well as analysing data from both empirical and theoretical sources (op.cit, p 546).

According to Kirkevold (1997), more integrative reviews should be carried out from an explicit philosophical or theoretical perspective to increase the theoretical knowledge base and develop research based nursing theories. Care should also be taken to use communication forms that make the review findings available and useful for clinical nurses as well as nursing scholars (Kirkevold, 1997). As I have previously mentioned, in later years *realist synthesis* or *realist review* synthesis have emerged as one type of systematic review that apply or generate theory in health service and nursing research. Align with insights from these approaches, review findings should be communicated to all stakeholders, and not only the nurse practitioners and nursing scholars. In my opinion, this will better reflect the growing acceptance within implementation research that sustainable evidence-informed change needs action from all stakeholders involved in the policy making, organising and performance of nursing and other health care services.

### **Developing search strategy for integrative reviews**

Due to the broad and diverse scope, it is challenging to develop good search strategies for integrative reviews (Wittemore and Knafl 2005). However, the scope and interest for my review of KT&KE literature coincided with the purpose of a recently published integrative review from Pentland and colleagues. Their aim was to inform the design and implementation of knowledge transfer (KT) and knowledge exchange (KE) activities in a large healthcare institution. A wide range of English language systematic reviews, literature reviews, and primary quantitative and qualitative papers published from 1990 – September 2009 were analysed, as well as grey literature of high relevance meeting the purpose of their review. Although the

authors identified substantial agreement about the key characteristics of KT and KE across a range of sources, they found that a coherent high- level evidence base was still lacking. Thus, the authors concluded by calling for "further primary research into the effectiveness and transferability of the specific methods and techniques used in knowledge transfer and exchange initiatives" (op.cit, p. 1421).

When I found that this review had included all the seminal papers I had reviewed for the background chapter of the thesis, my supervisors agreed that it was more beneficial to update the review from Pentland and his colleagues. Not only for the added personal learning value, but also because this enabled me to encompass a broader and more diverse scope of literature and include databases for organisational and psychological related research.

Consequently, as a main principle, I followed the aims and search strategies in the initial review when possible. Accordingly, the purpose and review strategies of Pentland et al (2011) will be thoroughly outlined in the following paragraphs. The few alterations made in the updated review will be described where relevant.

## The original study; 'Key characteristics of knowledge transfer and exchange in healthcare: Integrative literature review'

(Duncan Pentland, Kirsty Forsyth, Donald Maciver, Mike Walsh, Richard Murray, Linda Irvine & Simon Sikora - Accepted for publication 15 January 2011 JAN)

### Aims, search methods and strategies

Aiming for a comprehensive understanding of phenomena that facilitate effective KT and KE in healthcare, Pentland and colleagues reviewed diverse literature related to the following three processes:

- 'How research knowledge is communicated to clinical practitioners
- How research of greater priority, relevance and applicability is generated
- Whether these processes facilitate changes in health professionals' practice and decision-making' (Pentland et al.: 1409).

Their review was based on the Whittemore and Knafl's (2005) modified framework for integrative reviews. Four key themes including 'knowledge transfer', 'knowledge exchange', 'the importance of context' and 'the role of brokers' were identified using

a four- stage systematic analytic method to scrutinise data (Pentland et al,p 1410). Several sub-groups of information were identified within each theme, encompassing the total findings of key characteristics of knowledge transfer and exchange in health care institutions from the integrated review. The key findings in the reviewed papers were presented in a detailed table according to how they related to methods for facilitating the use of knowledge in practice (Pentland et al 2011, Table 2, pp.1411 – 1416).

### My search strategy for re-iteration of the review from Pentland et al (2011)

In addition to relying on the design and search methods, as well as inclusion and exclusion strategies developed by Pentland et al (2011), I also used information from the modified framework presented by Whittemore and Knafl (2005) when planning and undertaking the updated review.

I reiterated the search from where Pentland et al ended in September 2009 and up to December 2012. Studies were identified by searching Business Source Elite, the Cochrane Databases of Systematic Reviews, Psychinfo, CINAHL, MEDLINE and the ISI Web of Science part of Social Science Index. Pentland and colleagues developed specific search strings for each database, consisting of "combinations of key words, subject headings, abstract and subject terms and a wide range of indexed and non-indexed synonyms" (p1409). As far as possible, the same databases and the same search strings have been applied in the updated review (appendix 1).

However, three alterations have been made in order to perform the review within the time and resource frame of my PhD study. First, to be able to use the databases available at Bergen University College, the ASSIA base used by Pentland et al was replaced by the Social Science Index. The Business Source Elite replaced Business Source Premier. As both of these are more comprehensive than the ones they replace, this was found to be acceptable. Nonetheless, because of the broader scope of Social Science Index (SSI) compared to ASSIA I decided to only use the ISI Web of Science part of the SSI. Second, hand search of reference lists to identify additional relevant literature has not been done. By hand searching, Pentland and colleagues were able to identify 50 papers in addition to 1720 papers retrieved from

the computerised search. Third, the search string in PsycInfo differ from the initial study because Bergen University College's system is set up to 'explode' all terms. When we used the same search history, we ended up with 1318 hits compared to Pentland et al's 266 covering the years from 1990 – 2009. In order to change the set-up to match the search string in Pentland et al's review, the system provider (for OVID) would have had to make an unwanted change in the University College's main system. We chose instead to limit the search to title and added 'knowledge utilisation, knowledge implementation and knowledge exchange' in addition to the search words from Pentland's search: Knowledge management, knowledge transfer, evidence-based practice, information dissemination, innovation and 'Research and development' and Health Care Services. Using this strategy we ended up with 117 hits from Psychinfo.

### **Search outcomes from September 2009 - December 2012**

In order to concentrate on the most relevant literature, a detailed table of inclusion and exclusion criteria was developed for the first review based on Pentland and colleagues' "explorative engagement with existing literature" (p 1409). During this process 'communication of research knowledge to the public' emerged as one of the themes to be omitted. With exception of change of period for publication, I used the same criteria as Pentland and colleagues to determine papers relevant for inclusion or exclusion in the updated review (Table 1).

For inclusion in the review research papers had to meet the following criteria:

- 1) Peer-reviewed journal articles
- 2) Reports commissioned by health service organisations
- 3) English language only
- 4) Published from September 2009 to December 2012

As this integrative literature review is designed to help identify the most effective methods of knowledge transfer and exchange in health services the following criteria were also used:

- 1) Included articles which displayed the following characteristics:
- a. Evaluations or descriptions of collaborations between health service knowledge users and knowledge providers to promote the sharing of research information or evidence
- b. Evaluations or descriptions of collaborations between health service knowledge users and knowledge providers to create action from knowledge
- c. Evaluations or descriptions of collaborations between health service knowledge users and knowledge providers to undertake the production of new research information or evidence
- d. Literature reviews (including unpublished/grey literature) relating to the overall process of, or individual elements of KT and KE

### 2) Articles were not included that

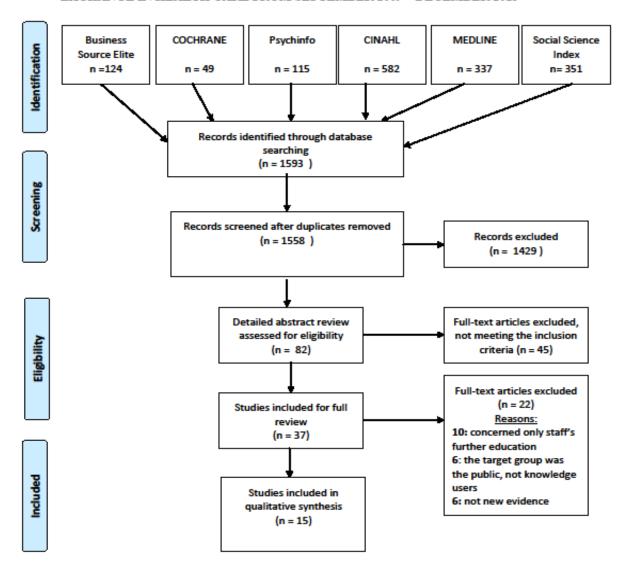
- a. Dealt with the transfer of knowledge between the practitioners/researchers and the public
- b. Dealt with the transfer and diffusion of programme or organisational innovations that do not include new research evidence
- c. Focused solely on the further education of health staff in research techniques, methods for accessing knowledge or building capacities to use research in practice

<sup>&</sup>lt;sup>4</sup> Adjusted from search criteria from Pentland et al 2011, p 1410

My search resulted in 1 593 titles. These were first imported into Endnote X7, resulting in 1 558 records after duplicate entries were eliminated. Thereafter, I used the inclusion and exclusion criteria to scrutinise the title, abstract and content to reduce the total of 1 558 into 15 studies that were included in the qualitative synthesis. The procedure for scrutiny as well as my understanding of the inclusion and exclusion criteria was discussed with my supervisors. Four papers I found difficult to assess whether to include or not were reviewed and discussed with the principal supervisor, resulting in one paper included and three excluded. Further details of the search process are described in the flowchart in figure 1. Summary of the included papers are presented in a table in appendix 2, p.5-15.

Figure 1 Flowchart integrative review of knowledge transfer and exchange from September 2009 - December 2013

### FLOWCHART INTEGRATIVE REVIEW OF KNOWLEDGE TRANSFER AND EXCHANGE IN HEALTH CARE FROM SEPTEMBER 2009 – DECEMBER 2013



Sources: Presentation structure: PRISMA 2009 Flow Diagram for literature search. Search strategy: Pentland et al 2011.

## Reporting the current review from September 2009 – December 2012

My purpose for updating the review by Pentland et al was to identify and describe potential confirming, conflicting and /or additional findings to the identified key characteristics of KT&KE in healthcare. The included articles were also scrutinised looking for new attempts to answer or illuminate the elements noted by Pentland and colleagues to be either missing or unclear (p.1421). Therefore, before presenting my review findings, I will start by presenting a comprehensive summary from the information offered by Pentland and colleagues (2011). Both information from the initial and the current review will be structured according to the four key themes and their related sub-groups identified by Pentland et al. Confirming, conflicting or additional information extracted from the updated review related to each of these categories will be noted in a paragraph after the original findings are presented.

## Theme 1: 'Sharing knowledge – key characteristics of knowledge transfer'

'Communicating forms of knowledge to relevant stakeholders through a variety of methods' were identified as a common theme, even though the definitions of KT varied across the studies. KT and KE addressing health professionals dominated the majority of the papers. Particularly, this was found to be the case in the systematic and literature reviews, as well as in case studies. Three sub- groups of information related to efficacy of method for sharing and transferring research knowledge to health care personnel were identified as 'relevance', 'accessibility' and 'format or method' (op.cit pp. 1410,1416 - 17).

#### Relevance

Taking care to ensure that the research information or findings were relevant for the knowledge users and decision makers, was indicated in several studies (Pyra, 2003, Mitton et al., 2007, Harrington et al., 2008). When sharing knowledge, several papers discussed the importance of actively and accurately targeting individuals or user groups to increase the relevance. These strategies were suggested to be facilitated by exploiting and building upon pre-existing communication channels (Titler et al., 1999, CPHI, 2001, Philip et al., 2003, McConnell et al., 2007).

### **Accessibility**

Making research evidence accessible to potential users was described as an important feature of KT strategies in the reviewed qualitative papers and case studies, as well as in one literature and one systematic review. For use in clinical decision- making, on-demand evidence-based information tools and computerised decision support methods were noted to be potentially effective strategies for improving accessibility and therefore implementation (Majumdar et al., 2004, Best et al., 2008). The benefit of allowing knowledge users swift and easy access to relevant research evidence was also described in several case studies (Titler et al., 1999, CPHI, 2001, Rosser, 2008).

Related to decision- making, timeliness in terms of ensuring that research evidence is provided when needed, was noted to be important. In addition, the evidence should be of direct relevance to the actual decisions to be made (Mitton et al., 2007). Or, as identified in a qualitative preference inquiry of public health decision-makers, the evidence should be relevant to their context and actual needs (Dobbins et al., 2004). When sharing research findings with policy makers, the most effective methods were indicated to be provision of clearly summarised research findings and policy recommendations. The same applied to fostering quality interactions with a few individuals to ensure institutional knowledge in the KT&KE process. The key characteristics of successful knowledge sharing according to Mitton et al. (2007), was ensuring relevance by tailoring the findings for specific audiences.

#### Format and method

How research is valued and the likelihood of utilising the knowledge was noted by Pentland and colleagues to be directly impacted by the way the research evidence is shared with health professionals. The prospect of the knowledge being used was also found to be increased if the knowledge was made physically accessible, as well as clearly and concisely presented (Harrington et al., 2008, Pyra, 2003, Mitton et al., 2007). In addition, based on a qualitative study from the public health sector, Dobbins et al (2004) argued the need for flexible knowledge sharing methods including various formats and levels of detail customised to meet individual preferences and needs.

In an overview of systematic reviews, Bero and colleagues found evidence of effectiveness related to a number of different knowledge sharing strategies (Bero et al., 1998b). These strategies included educational outreach visits, reminders of research findings and multifaceted interventions including combination of audit and feedback, marketing and local consensus processes. Similarly, multifaceted interventions and active education approaches such as outreach and reminders were found to be effective in changing health practitioners' behaviour. However, minimal effect was found if the methods were limited to provision of educational material and didactic education alone (Bero et al 1998 a-c).

The benefits of active and interpersonal KT techniques, as well as tailoring the interventions to specific audiences were reported in several studies (Majumdar et al., 2004, Pyra, 2003, McConnell et al., 2007, Best et al., 2008, Forrester et al., 2008, Harrington et al., 2008). Further, increased value by customising KT methods to meet individual needs at particular points and developing audience specific messages were found in a qualitative study by Dobbins et al (2004). Two papers discussed whether networks influence successful KT. Russell and colleagues observed the value of informal electronic networks offering targeted e-mails to highlight new research information or evidence (Chang et al., 2010). This method also allowed peers to act as 'richer and more accessible sources of research evidence' than the more formal literature searching methods. Likewise, in a study exploring Community of Practice, networks were indicated to make communication infrastructures more readily available and allow for effective sharing of research evidence and expertise (Conklin and Stolee, 2008).

### Confirming, conflicting or additional information related to Theme 1 extracted from the updated review from September 2009 – December 2012

Related to evidence derived from RCT and Interrupted Time Studies (ITS), the majority of studies took place in clinical research settings, targeting the individual rather than the organisation and the system/policy level. Overall, the findings in three systematic studies (Murthy et al., 2012, Giguère et al., 2012, Menon et al., 2009) and three case and one framework study (Campbell, 2010, Martiniuk et al., 2011b, McKay et al., 2009a, Wilson et al., 2010) supported that relevant material that is targeted and made accessible to audiences in a suitable format and method,

may increase linking evidence to action. Given a clear single message combined with a change that is relatively simple to accomplish, and a growing awareness of the need to change practice, Murthy et al (2012) summarised evidence from 5 randomised controlled trials (RCT) and 3 interrupted time series (ITS) showing that mass mailing of a printed bulletin synthesising systematic review evidence may improve evidence based practice (EBP). Likewise, Giguiere et al (2012) found in a systematic review of 45 studies (14 RCT and 31 ITS) that printed educational material may have a "small beneficial effect on professional practice outcomes" when used alone and compared with no intervention. However, the clinical significance of the observed effect sizes is not known due to insufficient information prohibiting the reliable estimate of the effect of printed educational material. When PEM was compared to other interventions or was part of a multifaceted intervention, the effectiveness is uncertain. Likewise, there is still insufficient evidence to support the effect of a multifaceted intervention to develop clinicians' awareness, knowledge and skills to implement evidence from systematic reviews, although the value of this approach was indicated (Murthy 2012, Menon 2012).

The particular importance of starting the knowledge translation process in the beginning, not at the end, of a research project was illustrated to be vital for moving research findings from an education programme of Epilepsy into action. Thinking about KT prior to research enabled the researchers to involve partners in the whole process; from defining the research questions and implementation strategies and onto sustainable programmes and policies (Martiniuk et al 2011). Consequently, researchers are advised to budget and incorporate knowledge translation activities in the initial grant application (Martiniuk et al 2011).

A new finding was that the KT&KE strategies should not only be targeted to the clinicians work environment. As noted in a systematic review (Menon et al., 2009) and one literature review of theoretical models (Kagan et al., 2010), strategies for KT&KE need also to address the specific learning styles and behaviours of the individuals that are going to put the knowledge into use at their particular workplace. As noted in a consensus policy document from ED doctors in a case study (McKay et

al., 2009b), new programmes need to recognise both the research evidence and the culture and microenvironment of the specific site (McKay et al 2009).

### Summary; status for knowledge sharing

The new findings confirmed the value of relationship models (Best et al 2008) and ensure that evidence informed knowledge is shared with individual professionals in a relevant manner and format tailored to meet their individual needs related to the specific working context and culture. They further confirm that the likelihood of being put into use increases if the information is made available at particular points when the professionals identify their needs. Likewise, recent systematic reviews indicate the possible value of multifaceted interventions of linking evidence to action, although evidence derived from single method effectiveness studies are still insufficient to support firm conclusions. No studies contested the previous findings. A new finding added to the identified importance of contextualising the information to the clinicians' work environment and culture, by pointing to the need of also assessing and tailoring the knowledge sharing to the individual clinicians' learning styles and behaviours.

## Theme 2: 'Generating knowledge – key characteristics of knowledge exchange'

Despite different definitions, terminology and models, knowledge exchange (KE) was generally explained to be an interactive and continuing process of collaboration. Through this two-way process, users are delivered information they find relevant in an easily accessible way, and at the same time, researchers are informed about the needs of users. In their review, Pentland et al found that information about KE largely focused "on collaboration and communication during the formulation, conduct and dissemination of new research knowledge" (op.cit p.1417). These findings were presented according to the sub- themes 'collaborative research formulation', 'collaborative research production' and 'collaborative dissemination' (op cit pp 1417 – 1418).

### **Collaborative research formulation**

Pentland et al. identified several review and case studies (Bero et al 1998, Fixen et al 2005, Mitton et al 2007, Hemsely- Brown 2004, Glascow and Emmons 2007,

Harrington et al 2008, Titler et al, Baumbush et al 2007) noting that collaboration between researchers and health professionals in the design process was an important element to ensure the production of practical and relevant research knowledge. In addition to being a valuable way to identify the knowledge needs of health professionals, these papers also suggested that health professionals were more likely to use the new knowledge when they found that the studies were based on a sound understanding of their needs.

### **Collaborative research production**

The value of collaboration as a means of influencing clinical planning and policy decisions was reported in systematic and literature reviews (Harrington et al., 2008, CPHI, 2001, Pyra, 2003, Hemsley-Brown, 2004, Fixsen et al., 2005, Glasgow and Emmons, 2007, Best et al., 2008). According to literature reviews and several empirical case studies, collaboration also increased the research relevance, value and acceptability for users by making it possible for them to ensure that the direction of the research remained on relevant issues (Crosswaite and Curtice, 1994, Bero et al., 1998a, Hemsley-Brown, 2004, Fixsen et al., 2005, Jacobson et al., 2005, Eke et al., 2006, Baumbusch et al., 2007, Glasgow and Emmons, 2007, McConnell et al., 2007, Harrington et al., 2008).

Similarly, two case studies identified that stakeholder involvement in the research process also may result in more practicable study outcomes because of the possibility of considering specific constraints and opportunities experienced in the practice context when the study is designed (Eke et al., 2006, Farkas and Anthony, 2007). The advantage of well-established and maintained quality relationships during collaborative research in KE initiatives was discussed in several studies. Having conducted the research in a reciprocal and respectful manner was noted to be a key to building effective and mutual partnerships to maintain both uptake of knowledge and a shared understanding of research and evidence acquisition skills (Pyra, 2003, Bowen and Martens, 2005, Garland et al., 2006, Harrington et al., 2008).

### **Collaborative dissemination**

Several case and empirical studies (Crosswaite and Curtice, 1994, Vingilis et al., 2003, Kothari et al., 2005, Forrester et al., 2008) suggested that collaboration

improved the researchers' understanding and appreciation of clinical environments. As Pentland et al. pointed out, this in turn resulted in a quicker identification of more relevant training needs and methods. At the same time collaboration increased the knowledge users' appreciation of the quality and potential use of the research evidence (p1418). In addition, cooperation was suggested to enhance the probability of turning knowledge to action, because of the stakeholders' opportunity to inform the implementation process of local and context- specific knowledge (Eke et al., 2006, Baumbusch et al., 2007, Farkas and Anthony, 2007). 'Educational outreach' was noted as an effective method to facilitate action from knowledge in systematic reviews and several of the literature reviews (Bero et al 1998, Grimshaw et al 2001, Fixsen et al 2005, Majumdar et al 2004, Best et al 2008). Accordingly, 'multifaceted educational techniques' using active or interactive methods were found to be effective (Bero et al 1998, Fixsen et al 2005, Best et al 2008, Harrington et al 2008). Several papers also identified the empirical evidence of on-site, face -to -face methods, role-play, feedback, in-service education and interactive and practical training (speech and language pathologists) (Fixsen et al., 2005, Corrigan et al., 2001, Molfenter et al., 2009).

One literature study (Glasgow and Emmons 2007) and a case study (Eke et al 2006) suggested that researchers should make efforts to share knowledge that could inform the uptake of research evidence. Organising specific training methods and levels and sharing reports on research process experiences when implementing, are proposed to increase the likelihood of application of research evidence. Likewise, these researchers suggested that commonly experienced challenges to implementation should be addressed. Further, they proposed that creating comparison conditions that are more reflective of real life situations will more likely increase the generalizability of study findings.

### Confirming, contesting and additional findings to "Theme 2 Generating knowledge – key characteristics of knowledge exchange

In accordance with the findings from Pentland and colleagues, several studies noted the importance of collaboration during the whole process of formulating, conducting and disseminating new research knowledge in order to more effectively link new evidence to action (Munten et al., 2010a, Kagan et al., 2010, Berta et al., 2010b,

Ward et al., 2012, Campbell, 2010, Martiniuk et al., 2011a, Perry et al., 2011, Wilson et al., 2010). Likewise, the value of collaboration to influence clinical planning and policy decisions was supported in a case study from a consensus building workshop for emergency medical doctors (McKay 2009) and in a study comparing community based research and existing KT&KE frameworks (Wilson et al 2010).

However, unlike the studies retrieved from the period before September 2009, the recent findings show that definitions and terminology are becoming increasingly harmonised. The increasing number of studies identified in the current review to use the CIHR definition indicates that a shift has taken place regarding how the process of knowledge translation is conceptualised. Instead of focusing on the process only as linear and research driven, 'knowledge exchange' is increasingly used to conceptualise the dynamic and relational processes that include distinct forms of generating knowledge derived from both research and practice. While Pentland et al (2011) identified that definitions were either lacking or diverse; six of 15 papers that defined the KT&KE process used the Canadian Institutes of Health Research to conceptualise knowledge translation (Menon et al 2012; Kagan et al 2010; Ward et al 2012; Campell 2010; Martiniuk 2011; Wilson et al 2010). In this definition:

"Knowledge translation is a dynamic and iterative process that includes the synthesis, dissemination, exchange and ethically sound application of knowledge to improve the health of (Canadians), provide more effective health services and products and strengthen the healthcare system. This process takes place within a complex system of interactions between researchers and knowledge users which may vary in intensity, complexity and level of engagement depending on the nature of the particular knowledge user.

### (http://www.cihr-irsc.gc.ca/e/29418.html)

In keeping with this definition, the idea of implementation being a linear, deterministic process that can be conceptualised as a rational, cognitive, intellectual endeavour is contested. Based on a multiple case study in long term care facilities in Canada, Berta et al (2010) found the knowledge application process to be highly complex and iterative. Ward et al (2012) used realist evaluation in a case study in a large mental health organisation in the UK and found that knowledge exchange could be seen as a dynamic and fluid process that includes distinct forms of knowledge

from multiple sources. Informed by a realist approach and based on the assumption that the gap between research and practice is an exchange problem, Ward and colleagues introduced knowledge brokers that worked with teams on the principle of problem solving. At the same time the brokers did parallel observation studies of how the knowledge exchange processes unfolded. Five broadly-defined components of KE activities; - problem, context, knowledge, activities and use, were identified to happen simultaneously and they did not occur in a set order.

Problem identification was found to be a crucial aspect of the KE process. But unlike linear approaches like the Plan –Do-Study- Act- cycle that encourages users to define questions, objectives and hypotheses before trials and therefore limits the possibility to do revisions during the course of a study, Ward et al (2012) found that problem identification was continuously revised and developed during the process. The findings also suggest that naturalistic processes of reflexivity and discrimination should be integrated in formal knowledge translation activities. Acknowledging the dynamic nature of KE, the authors question to what extent formal knowledge translation interventions can and should add value to the naturalistic KE in their own context. Thus, they propose a revised model of knowledge exchange to help reorient the thinking about KE. Consequently they suggest a framework based on a "growing understanding about the multifaceted, variable use of knowledge across settings (Nutley et al., 2007) with a clearer description of the fluid, dynamic nature of knowledge exchange" (Ward et al 2012, p 302).

### Summary - status for generating knowledge

Collaboration during the whole process of formulating, conducting and disseminating research was confirmed to be pivotal for increasing the likelihood of evidence informed practice. Established and maintained partnerships throughout the whole process increased the research relevance, value and acceptability, as well as the clinicians' confidence that the KT & KE studies were based on a sound understanding of their particular needs. Several studies established evidence of interactive and on- site methods and confirmed the value of collaboration to influence clinical planning and policy decisions.

However, due to findings confirming the fluid, dynamic and multifaceted nature of knowledge exchange and integration, new findings from multiple case studies and realist evaluation with brokers acting in a dual role of doing parallel observations, contest the significance of formal knowledge interventions based on predesigned hypotheses and problem identification. A new finding from the current review showed that definitions and terminology are becoming increasingly harmonised for this research field, with the majority of the included studies using the Canadian Institutes of Health Research's definition. This may indicate a shift towards a wider support to include the naturalistic and participatory processes of reflexivity and workplace learning activities in formal knowledge exchange and integration; as an addition to the former identified need for contextualisation.

## Theme 3: 'Applying knowledge – creating optimal conditions for action'

Throughout the reviewed literature, Pentland et al identified **contextual factors** to influence the knowledge users' ability to make evidence-based decisions. The prospect of research evidence being used in practice was suggested to increase if potential barriers were identified and managed. Knowledge Translation and KE activities that built on potential facilitators already being present in the knowledge users' context were noted to intensify the probability of successful uptake of research evidence in practice (Grimshaw et al., 2001, Glasgow and Emmons, 2007, McConnell et al., 2007). However, as pointed out by Pentland et al, even though a comprehensive understanding of how barriers and facilitators best can be exploited is still lacking, several of the included studies identified different barriers and facilitators within organisations.

The potential benefit of engaging local opinion leaders to guide the necessary changes needed for knowledge application in practice was noted in numerous studies. However, as concluded in the systematic and literature reviews, opinion leaders are variably effective in achieving this aim (Bero et al., 1998c, Pyra, 2003, Mitton et al., 2007). In two case studies, (McConnell et al., 2007, Crosswaite and Curtice, 1994) the opinion leaders' ability to facilitate the process was appraised and they were noted to be particularly helpful in managing areas of tension, motivating

stakeholders' interest and upholding the organisations' commitment to making evidence-based changes in practice.

In addition, engaging managerial and organisational stakeholders was noted as a useful method to create positive conditions for knowledge utilisation. Based on a case study, Titler et al (1999) suggested that organisational support for change is essential for success. Corrigan et al (2001) argued in a literature study that evidence-based changes in practice can be advanced if key stakeholders are equipped with transformational and transactional leadership skills in order to encourage the staff to modify their approach to use of knowledge. Several papers argued that the application could be effectively increased if the knowledge users' capacity to understand and critique research was developed (Mitton et al., 2007, Corrigan et al., 2001, Pyra, 2003, Harrington et al., 2008).

Numerous conditions were suggested to be beneficial for the organisations' capacity to turn knowledge to action, among these, the need to ensure a proper foundation in terms of sufficient time, financial, technological and human resources were frequently cited (Fixsen et al., 2005, Mitton et al., 2007, Best et al., 2008, Harrington et al., 2008, McWilliam, 2007). In addition, based on a mixed-method review, Best and colleagues outlined how organisations' ability to attain and use knowledge was influenced by the 'unique rhythms and dynamics, worldviews, priorities and processes, language, time scales, means of communication and expectations' (Best et al 2008,p.322). Building on these factors appears to be an important aspect in creating the supportive organisational environments for KT and KE activities to facilitate evidence-based practice in health organisations (Pentland et al.2011).

Likewise, Bowen and Martens (2005) noted in a multi-method qualitative study, that building the organisational capacity is necessary to overcome barriers that cannot be solved by developing the individuals' skills alone. One case study of a clinical-academic partnership described the leadership style associated with supportive administration, as well as a shared governance structure that actively promoted nurses' involvement and participation in research activities, as a success criterion (Forrester et al 2008).

Based on a case study reviewing a research and training centre's experience of five basic principles for overcoming the most common barriers to effective knowledge dissemination and utilisation, Farkas and Anthony (2007) concluded that the more successful outcomes were found in organisations that were enabled to both generate and disseminate research. By this ability, Farkas and Anthony argued, such organisations were able to provide the most supportive conditions for KT and KE activities to occur. To this end, several favourable conditions were identified, such as; a) supporting a continuous dialogue between researchers and stakeholders, b) continuous development of new evidence based messages based on a body of research rather than single studies and lastly, c) building the organisations' capacity to actively strive to manage shifting implementation barriers.

## Confirming, contesting and additional findings to "Theme 3 Applying knowledge – creating optimal conditions for action"

Contextual factors at the individual, organisational and environmental level were confirmed to influence the organisations' capacity in supporting its members to apply evidence based knowledge. In a multiple case study in long term care (LTC) facilities, Berta et al (2010) found the knowledge application process to be highly complex, iterative and reliant upon the facilities' absorptive capacity to effect change through learning. Finding that the majority of elements for successful knowledge application in LTC context were organisational, the authors concluded that application of new knowledge should be regarded as an organisational level phenomenon which requires collective action, organisational capacity and support. Consequently, organisational and clinical leaders are suggested to play a vital role in creating and supporting the facilities' knowledge application capacity (Berta et al., 2010a).

Case and literature studies further confirmed that active involvement of participants right from the start increased the prospect of research being used (Munten et al 2010; Kagan et al 2010; Berta et al 2010; Ward et al 2012; Martiniuk 2011; McKay 2009; Wilson et al 2010). In addition, McKay et al (2009) proposed that involving participants in creating policy support for essential public health interventions on the regional, state and federal level in the US may help to overcome implementation barriers.

Additionally, several case studies demonstrated that timing was essential for putting knowledge into use. Campell et al (2010) reported the necessity of timing the intervention to the requests of the intended users, while Martiniuk et al (2011) pointed to the importance of starting the KT process at the beginning and not at the end. Thus, allowing time to foster successful partnerships and include knowledge users in deciding how and when the KT activities should be rolled out in the organisation. Likewise, in a framework study testing the utility of the PARIHS framework in Australian residential care, Perry et al (2011) reported the 'time-dependent' nature of facilitation as a supplementing element to the conceptual map of PARIHS, implying that it is essential to time the intervention with other priorities, and allow staff adequate time to adjust and adapt to new ways of working.

In a framework synthesis of 21 research projects using action research to implement EBN, Munten et al (2010b) suggested action research as a promising approach to implementation of evidence based practice. However, they noted that despite acknowledgement of contextual influences, none of the reviewed projects reported specific results related to leadership, and very few interventions were aimed at changing leadership and culture (Munten et al., 2010a).

New findings were related to three framework studies addressing participatory action of putting knowledge to use at the community level. Wilson et al (2010) suggested the utility of a community based KT&KE framework in helping community based organisations to more effectively link research evidence to action consisting of four primary areas; 1) developing and maintaining partnerships, 2) increasing the production of community relevant systematic reviews, 3) creating an integrated and large- scale evidence service, 4) evaluating efforts to undertake community based research and link research evidence to action. Campbell et al (2010) argued that participative action research in combination with diverse and complementary elements from existing frameworks for knowledge translation (The Ottawa model of research use 'OMRU' and Knowledge – to – Action 'KTA') can be used to successfully generate knowledge based action in a rural community context. Related to the complexity of aged care facilities in Australia having the simultaneous function as residents' homes, staff workplaces and businesses, Perry et al (2011)

found good conceptual fit and relevance of the PARIHS framework. The framework was therefore recommended as a tool for knowledge translation activities in residential care.

However, like in the review from Pentland et al (2011), the conclusions from systematic and literature reviews reported variable effectiveness related to the various contextual conditions influencing the individual and organisational application of knowledge. While several of the studies included by Pentland and colleagues identified the potential benefit of engaging local opinion leaders, the effectiveness of this measure remains unverified after a recent systematic COCHRANE review of 18 RCT studies (Flodgren et al 2011a). Describing opinion leaders as people who are trustworthy and influential, thus, having the ability to persuade health care providers to use evidence when treating and managing patients, the authors conclude that opinion leaders alone or in combination may successfully promote evidence based practice. However, the best way to do this remains uncertain because the reported effectiveness varied both within and between studies. Further, the included studies were heterogeneous and varied in terms of intervention type, settings and the outcomes measured. In addition, the role of opinion leader was unclearly described and some methodological shortcomings were identified in most studies (Flodgren et al 2011a). Likewise, Menon et al (2012) found that the effectiveness of single or multiple KT interventions to improve knowledge, attitude and practice behaviour of occupational and physical therapists were unclear. They concluded that serious gaps remained relating to which KT&KE strategies positively impact on patient outcomes.

A new finding was related to the lack of effectiveness studies concerning organisational infrastructure, defined as being 'the underlying foundation or basic framework through which clinical care is delivered and supported' (Flodgren 2012:1). Despite extensive searching of RCTs, controlled studies, interrupted time studies and controlled before and after studies, the 'Cochrane Effective Practice and Organisation of Care Group' found only one low-quality study involving one hospital in the US eligible to be assessed for inclusion (Flodgren et al 2012). Consequently, given the consensus of contextual influences on KT&KE activities

they conclude that policymakers and health care organisations need to fund and ensure the conduct of well-designed studies in order to generate evidence to guide policy in this field.

However, both the appropriateness of using trials to test knowledge translation interventions and the inherent difficulty of using randomisation in attempts to control the multiplicity of contextual influences on process and outcomes are contested based on findings from case studies. By underlining the dynamic and fluid process of knowledge exchange in particular contexts, Ward et al (2012) question to what extent formal knowledge translation interventions can and should add value to the naturalistic KE in their own context, while several authors (Campbell et al 2011; Martiniuk et al 2011; McKay et al 2009; Perry et al 2011) contest the value of effectiveness studies based on findings demonstrating that relevance, timeliness and appropriateness related to the end users interests and needs in specific contexts influence the potential for successful application of knowledge. Further, there is a challenge in designing studies that recognise the nature of evidence and the consequent diversity of how this may impact the process of knowledge. As noted by Munten et al (2010a) in a framework synthesis of 21 studies using action research to implement EBN, promising results could be identified by applying a broader understanding of the outcomes in terms of changes in the nurses' way of thinking and acting to develop their practice.

### **Summary – status for applying knowledge**

Contextual factors were confirmed to influence the organisations' capacity to support its members in applying new knowledge. Nonetheless, the conclusions from systematic and literature reviews reported variable effectiveness related to the various contextual conditions. Opinion leaders, defined as people who are trustworthy and influential, were identified in a systematic Cochrane review to be effective. However, due to limitations and methodological shortcomings of included studies, the best way of using opinion leaders remains unverified. Given later years consensus of contextual influence and still not being able to review any good quality studies addressing the effectiveness of organisational infrastructure, the 'Cochrane

Effective Practice and Organisation of Care Group' argue for more well designed effectiveness studies to guide policy in this field.

However, conclusions from several case and framework studies contest this request for trial and effectiveness studies due to the nature of both the evidence and the multifaceted knowledge utilisation processes. The included case and framework studies from the current review were able to identify that the majority of elements for successful knowledge application were organisational, with organisational and clinical leaders playing a vital role in creating and supporting their organisation's knowledge. Thus, these studies confirm the value of including the leaders in participatory action oriented implementation strategies.

Additional findings related to timing emerged as essential for putting the knowledge into use, such as; a) timing the intervention to the requests of the intended end users, b) the importance of starting the KTE process at the beginning to allow sufficient time to foster successful partnership, c) include clinicians in decisions of how and when the KTE activities should be rolled out in the organisation, as well as d) the need for timing the intervention to other priorities and allow staff adequate time to adjust and adapt to new ways of working. At the community level, the potential worth of the PARIHS framework, the 'OMRU' and KTA framework were identified based on framework studies. The PARIHS framework was recommended as a tool for implementation activities in residential care.

# Theme 4: 'Knowledge brokering – facilitating knowledge sharing, creation and application'

Knowledge brokers acting to facilitate links between researchers, research users and policy or decision makers were identified in the Pentland review to benefit KT and KE activities. Knowledge brokering was also found to increase health professionals' effectiveness to obtain, generate and use research knowledge. Based on a synopsis of key enablers to knowledge translation, Harrington et al. (2008) suggested the value of knowledge brokers in assisting researchers to develop the necessary skills and confidence to interact with varied audiences and, at the same time, support knowledge users to understand the research process. Similarly, based on a literature

review of studies with variable effect sizes, Harvey et al (2002) indicated that individual facilitators through 'face-to-face communication' and the use of multifaceted strategies had some impact to change individual and organisational practice. Likewise, several papers noted the advantages of a knowledge broker to include the promotion of 'collaborative relationships', initiate knowledge sharing activities and building networks both within and between research producers, users, managers and organisations (Crosswaite and Curtice, 1994, Philip et al., 2003, Vingilis et al., 2003, Best et al., 2008).

In addition, a case study of a research and training centre demonstrated that the perceived value of research evidence was directly influenced by the credibility of the person who shares the knowledge (Farkas and Anthony 2007). According to these authors, this was not only due to the credibility knowledge brokers can earn when facilitating action from knowledge in an organisation. The facilitation process also allows knowledge brokers to build reciprocal relationships and identify key stakeholders. Similarly, findings from a qualitative case study investigating preferences for receiving research knowledge showed that health care policy makers were more likely to use research evidence if they found it credible. Once credibility had been established by an organisation, this potentially increased future use of knowledge based on research produced by the same organisation (Dobbins et al., 2004).

### Confirming, contesting and additional findings to 'Theme 4 Knowledge Brokering – facilitating knowledge sharing, creation and application'

The value of a knowledge broker role bringing researchers, decision makers, clinicians, organisational and political stakeholders together to build relationships for sharing and exchanging research knowledge was confirmed in several studies. Kagan et al (2010) reported positive feedback using knowledge brokers to provide linkages between members of a Community of Practice (CoP) and researchers. The CoP reported in this case study was organised for people with aphasia to participate in healthcare decision making and knowledge exchange activities. However, the role of knowledge brokers was not yet formally evaluated (Kagan et al 2010).

Although using other terms, two studies implied the use of a role corresponding to a knowledge broker. When testing the utility of the PARIHS framework, Perry et al (2011) identified that staff in nursing homes valued the potential effect of a role that provided guidance and empowerment of front-line staff. When mapped to the PARIHS framework this role was interpreted as being the role of facilitator. The provided information was equivalent to the attributes connected to the role of knowledge broker as summarised by Pentland et al (2011). A knowledge broker role is also implied in the first of four primary areas called 'developing and maintaining partnerships' in a framework Wilson and colleagues (2010) suggested for community-based KT & KE as a result of comparing the concepts and methods of community-based research and existing KT & KE frameworks. In this framework, the role of a knowledge broker is suggested to more effectively linking research to action at the community level.

No studies contested the value of facilitation. However, like the three other key areas, no statistically significant difference in evidence could be found in a COCHRANE published review when knowledge brokers were used as a part of an organisational intervention in combination with access to sources of systematic reviews and provision of tailored messages (Murthy et al 2012).

An additional finding relates to results from a case study in three health care settings in the UK (Ward et al., 2012). Ward and colleagues used a realist approach with knowledge brokers doing parallel observations to illuminate and illustrate the nature of knowledge exchange that make changes appear. They conclude that KE activities could be interpreted as a dynamic and fluid process including distinct forms of knowledge from multiple sources. Consequently, the researchers suggest that knowledge brokers additionally should provide opportunities to ensure that naturalistic processes of reflexivity and discrimination are integrated in formal knowledge translation activities.

### Summary – status for knowledge brokering – facilitating knowledge sharing, creation and application

The included studies confirm the value of a knowledge broker role in facilitating the individual and team-based processes of putting knowledge into use in health care and

nursing. A knowledge broker role was also found helpful in creating and maintaining reciprocal relationships between researchers, knowledge users, policy- and decision makers. The significance of promoting and maintaining networks, as well as initiating knowledge sharing activities was also indicated. In addition, promising results were reported when researchers acted in a dual role as knowledge brokers and did parallel observations which enabled them to identify and illustrate the dynamic and fluid nature of knowledge exchange that make changes appear. Consequently, the role of a knowledge broker should provide opportunities to ensure that the naturalistic processes of reflexivity and discrimination are included in formal knowledge translation activities.

#### Areas for further research

Based on the reviewed literature, Pentland et al. identified several areas lacking. First, that the KT and KE literature still lacks robust and high-level evidence to support design and implementation strategies in health care organisations. Second, that comprehensive evaluative research approaches covering the whole process of KT and KE initiatives are warranted. This also includes the three core themes of knowledge sharing, knowledge production and knowledge utilisation. Third, that multiple models and frameworks describing the KT and KE process have been developed because of the variety of terminology, definitions and conceptualisations of how evidence based practice best can be achieved and sustained.

Thus, Pentland and his colleagues concluded their review by pointing to the need for empirical evaluative research into KT and KE initiatives. In particular, theory driven research concentrating on the suitability of specific methods for application in different healthcare contexts and with different disciplines is warranted. Based on the analysis of the reviewed literature, Pentland et al. suggested that future research should pay particular attention to how organisations can be supported in creating facilitating conditions to improve the organisational capacity to host successful KT and KE activities. The analysis also alluded to the key message for researchers to actively engage, collaborate and remain attuned to their target audience throughout the entire research process from design to dissemination.

If further research also concentrates on processes and use of common definitions and measures, this might in turn potentially expand the hitherto absence of coherent and developed evidence bases for KT and KE. Pentland et al. suggested that researchers focus on designing, implementing and evaluating practical solutions that enable health professionals to engage in these three core processes. This, they argued, would develop implementation and knowledge translation research in a worthwhile direction by expanding existing models. To this effect, many of the identified key characteristics of how the knowledge transfer and exchange process may occur are already conceptualised in the existing models (Pentland et al 2011, p 1420). This also applies to two of the models used in nursing research, the *Promoting Action on Research Implementation in Health Services* (PARIHS)(Kitson et al., 2008) and the Institutes of Health Research's *Knowledge-to-Action* (KTA)(Graham et al., 2006).

While PARIHS postulates successful use of knowledge in practice to be a function of the interaction between different types of knowledge, context and facilitation, the KTA model describes the key elements involved in KT and KE by outlining an action cycle in which knowledge is adapted to the local context and barriers to knowledge use assessed. According to Pentland et al., expanding and further identification of both models to create conceptual clarity and agreement would be of considerable value to promote routine evidence-based practice in health care institutions.

### **Discussion**

This review set out to update an integrative review performed by Pentland et al (2011) from September 2009 through to December 2012. Like in the initial review, the aim was to inform the design and implementation of sustainable knowledge transfer in health care organisations in general, and for my part, for nursing homes in particular. The same search strategy, databases, inclusion and exclusion criteria were used, and the findings were organised as confirming, contesting and additional to four key themes identified from Pentland and colleagues covering the characteristics of knowledge transfer, knowledge exchange, the importance of context and the role of brokers.

Overall, the current findings support the understanding of knowledge transfer and knowledge exchange as complex processes that will be more likely to succeed if stakeholders, research producers and research users engage in collaborative action. Particularly when summarising the findings from the case and framework studies, I find that they validate the main elements encompassed in the definition of knowledge translation and knowledge exchange from the Canadian Institutes of Health Research stating the 'dynamic and iterative nature of the knowledge process' as well as underlining the 'complex system of interactions between researchers and knowledge users which may vary in intensity, complexity and level of engagement depending on the nature of the potential knowledge user'(CIHR, 2011)CIHR internet retrieve 2013).

To undertake the interactions between different actors and adequately move knowledge through complex health systems, the findings suggest that researchers and professional communities build and maintain reciprocal partnerships that acknowledge the strengths and value of participants from different levels and positions in the health and social services. In particular, the value is underscored by involving end-users of knowledge in the whole research process from defining the research questions and develop the implementation strategies and onto sustainable programme and policy recommendations. Using action research is suggested to be a promising approach; not only to promote the implementation processes, but also in co-creating context specific knowledge of promoting and hindering application and sustainability factors.

According to the included studies, the contextual factors related to the particular organisations' capacity for turning the knowledge to action should be central elements of the dialogues during the preparation and planning phase. Several areas in need of attention were identified, including; a) organisational infrastructures, b) finance and sustainability issues, c) timeliness in terms of the organisation's and the practitioners' readiness to engage in implementation activities, d) the anticipated relevance of the knowledge and lastly, e) the individuals' learning styles and behaviour. In the implementation phase, co-operation between researchers and knowledge users was suggested to increase the potential for success and

sustainability if both parties could take part. Particularly in situations when problem definitions and implementation strategies required to be renegotiated during the course of an intervention consequent to changed conditions that may be provoked by either internal or external forces

Pentland et al (2011) noted that the progress of a coherent and developed evidence base for KT and KE has been hampered by variations in terminology, definitions and conceptualisation. In the current review however, six out of fifteen studies used the CIHR definition, and four framework studies used the KTA and PARIHS framework coherent with this definition. This may indicate a development towards the suggestions from Pentland and colleagues of engaging health professionals in the core processes of designing, implementing and evaluating practical solutions related to their own contexts. Consequently, the identified shift towards partnership models will require methodologies that allow researchers and health professionals to cooperate and actively engage in collaboration throughout the entirety of the research process from design to dissemination. Further, it reflects the type of content that falls into the 'Relationship models' described by Best and colleagues (2008) as the second generation of research application models, lasting from the mid-1990s to the present. While the 'Linear models' that dominated the first generation from 1960 to mid-1990 suggested knowledge transmission as a one way process of knowledge transfer and research uptake, the 'Relationship models' view the barriers to KE as more linked to the qualities of the interactions between knowledge users. Thus, the concept 'knowledge exchange' replaces the first generation language. This indicates that the key process is interpersonal, and based on collaboration between social relationships, networks of researchers and professionals that actively engage in finding ways to contextualise knowledge from research, theory and practice to the local settings (Best et al., 2008).

Consistent with the conclusions from Pentland et al (2011), stating that the key message for research producers is to actively engage in collaboration and remain responsive to the target audience during the whole research process, the degree of successful knowledge use within the 'Relationship model' is viewed as a function of effective relationships and processes.

However, additional findings in the updated review especially revealed in case studies using action research and realistic evaluation, indicate a further movement towards approaches defined by Best and colleagues (op.cit) as 'System models'. While the interpersonal and communicative nature of KT & KE processes were confirmed, additional findings using realist evaluation revealed that knowledge exchange could be seen as a dynamic and fluid process that includes distinct forms of knowledge from multiple sources both within and outside the organisation.

In system approaches, the language shifts from knowledge *exchange* to knowledge *integration*, emphasising that the knowledge cycle is embedded within the local settings' priorities, culture and context. Relationships are recognised to be

'...shaped, embedded, and organized through structures that mediate the types of interactions that occur among multiple agents with unique rhythms and dynamics, worldviews, priorities and processes, language, time scales, means of communication, and expectations' (Best et al 2008, p 321).

Systems, represented by for instance organisational infrastructures, processes and contexts, hold all these different agents together. Activation is needed to link the various parts of the system together.

To adequately address the challenges of naturalistic knowledge exchange in their own context, similar to the findings from the reviewed case studies, within a system approach all parts in the implementation processes need consideration, being elements such as; a) policy makers and funding, b) the role of organisational and clinical leaders, c) the strength and expectations of various partners, d) timeline, e) readiness, f) decision-making and g) incentives for change. Being a broad area of inquiry that emphasises the understanding of how parts of a system relate with the whole, Best et al (2008) advocate that use of system model approaches enables the consideration of where feedback loops occur, as well as the nature and social interactions between the different actors. Further, they argue that applying a system perspective could contribute to facilitating faster and more efficient learning by highlighting the connections within a system that need to be changed to increase the exchange opportunities.

A consequence of viewing the entirety of the process from knowledge creation to implementation from a system perspective, is to reconceptualise the role of communication as a central strategy to provide the 'glue' to connect people and organisations within a system that can share common goals albeit having different priorities and methods of inquiry (op cit, p 325). Concurrent with *knowledge integration* defined as 'the effective incorporation of knowledge into decisions, practices and policies of organisations and systems', the third generation models assume the degree of knowledge use to be a function of effective integration with the organisation(s) and its systems (Best et al 2008, table 1, p 322).

Although no studies in this review used the knowledge integration definition, literature from case studies support the key assumptions described in the third generation models. By realist inspired empirical investigation, the dynamic and fluid nature of knowledge exchange could be distinguished. Consequently, a crucial finding was that problem definition needed to be open for continuous revision and evolution over time as a response to changes in other parts of the system. The same findings also revealed that different components of knowledge exchange activities could happen at the same time, and that they did not occur in a set order. Consequently, communication was found to be a central strategy to promote collaboration between different actors to undertake renegotiations according to shifting conditions. The fluid and dynamic nature of knowledge exchange in these systems also suggested that processes of reflexivity and discrimination were integrated in formal knowledge translation activities.

Related to suitable methods, while authors of systematic reviews of RCTs and ITS studies supported the conclusion from Pentland et al pointing to the need for more robust research into knowledge transfer and exchange, findings from the current review indicate that more research into this field by only using randomisation and trial approaches should be contested. As argued by Best and colleagues (2008), RCT designs are both impractical and inappropriate in studying context sensitive implementation in systems 'where interaction and adaption is a natural and desirable feature over isolation' (Op cit,p 322).

I found this challenge reflected in several of the conclusions from the systematic COCHRANE studies included in the current review, reporting that solid conclusions of effectiveness were prohibited due to common shortcomings in heterogeneous interventions lacking detailed descriptions that made it difficult to control experimentally. Rather, in my view, the current findings confirmed that context is a critical element in understanding the organisations in which knowledge shall be put to use. Consequently, relevance is highlighted as an issue of external validity that needs particular attention both when designing and performing the research and when the results are disseminated.

I regard the increasing number of studies basing their understanding on the CIHR definition of KT as pointing to the need for mixed method research that can address both the effectiveness of particular parts, as well as the processes taking place in the interactions between actors working in these complex health systems. In addition, as suggested by Pentland et al, using action research designs that allow health professionals to participate in the application and knowledge production processes was found to be a promising approach to implementation of evidence based practice.

The study from Ward and colleagues (2012) may act as an example of the added value of a multi-method approach. By using realistic evaluation they were able to provide insight into the dynamic nature of KT & KE processes by in depth studies and conceptualisation of how processes occurred and took different directions in three health institutions. Being based on a philosophy of realism, realist inquiry considers the interaction between context, mechanism, and outcome (Rycroft-Malone et al., 2011, Wong et al., 2013b). The realist research question is often summarised as 'What works for whom under what circumstances, how, and why?', thus having the potential to expand the 'knowledge base in policy-relevant areas – for example, by explaining the success, failure or mixed fortunes of complex interventions' (Wong et al., 2013b).

Realist inquiry is theory based, and the current review findings have confirmed that the PARIHS and KTA frameworks can be used to frame studies within a realist inquiry approach in the field of nursing practice. Related to PARIHS, the utility for residential care has been confirmed, whereas the processual and circular action components in the KTA have been illustrated in several of the case studies. However, it still remains uncertain how the different elements interact in the processes of an implementation. Further illumination of the relative interrelation in terms of efficacy of the conceptual sub-elements of PARIHS and the process elements of KTA is also needed. The same applies to knowledge of how these different elements interact in specific contexts and what is more or less effective in one context and not in another.

For instance related to the context sub-element of leadership in PARIHS; the review findings confirm the value of both the organisational and clinical leaders in knowledge exchange processes, as well as the need to address both collective workplace learning and the individual motivation and learning styles of the people working there. However, the connection between leader and the learning processes and *what* the leader does when practising her role and *how* this may influence the efficacy of creating and supporting the organisations/workplaces' knowledge application capacity remain in need of further clarification. To this end, an ongoing longitudinal three-phase realist evaluation using multi-methods and combining PARIHS and KTA as an overarching conceptual framework to study a partnership between higher education institutions and local health services in England, may hopefully contribute to add more clarity to the processes and impact of the multitude of elements and stakeholder involvement in an implementation process (Rycroft-Malone et al., 2011).

#### Conclusion

Although high level and robust effectiveness evidence may still be lacking due to limitations in available effectiveness studies, the evidence base and understanding of the multifaceted nature of the knowledge translation, exchange and integration processes in complex health systems have increased. Up until 2009, the influence of context and relationship models was increasingly acknowledged as important for implementation designs and strategies in health care and nursing. However, the increasing use of the CIHR definition of KT & KE in the included papers in the current review and findings from recent case studies and realist evaluation in the KT & KE field suggest a movement towards a third generation model where the degree of knowledge use is conceptualised as a function of effective integration within the

organisation(s) and its systems (Best et al 2008, table 1, p 322). Consequently, communication emerges as a central strategy to provide the 'glue' to connect people and organisations within a system that can share common goals. Evidence from this review suggest that the role of a knowledge broker as well as creating and fostering reciprocal and longstanding partnerships between researchers and professionals may provide a promising structure for addressing all the parts that need consideration in a system approach to implementation, such as; policy makers and funding, the role of organisational and clinical leaders, the strength and expectations of various partners, timeline, readiness, decision-making and incentives for change.

The findings also point to methods that make it possible to simultaneously act and study within a theoretical frame. The theoretical frameworks of PARIHS and KTA have been found valuable to frame research in nursing and health care as they capture both the implementation processes and a conceptual map of the complexity of elements involved. However, more clarity into the interaction and interrelation between elements, as well as the mechanisms that make the action cycles move in a beneficial direction, is needed. The review findings suggest a particular focus on the PARIHS leadership element in relation to creating and sustaining conditions for workplace learning (socio cultural and the individual constructive) and the willingness and learning styles of the individual staff members. In particular, more research is warranted within the role and influence of leadership related to the health and nursing facilities' absorptive capacity to effect change through learning. Not only because of the rapid and increasing knowledge production that requires a continuous attention of adapting new evidence. A continuous capacity for learning to change is also necessary to cope with the influencing conditions in the institutions' macro and meso-environment in terms of policies, finances, organisation and so forth.

To advance the knowledge base in this field further, I conclude that the results suggest that money and resources privilege realist evaluation and action oriented research based on reciprocal partnerships between researchers and the practitioners responsible for putting the knowledge into action on a daily basis. Such approaches offer the advantage of being able to combine methods to capture the complexity and

react flexibly to the fluid connections within the organisations that need to be changed to increase the knowledge integration opportunities. Consequently, rigorous research findings may potentially be offered while the researchers at the same time can contribute to changing the practice in a worthwhile and evidence informed direction. While such research is not easy and also costly, relying on the findings in this review, I will argue that application of methodology should also address the ethical issues related to the balance between the extra burden researchers impose on the organisations and what they give back. In my view this is especially important in the nursing home sector where the care challenges often are found to exceed available resources in terms of patient-staff ratio and the available skills and competence. In addition, the systematic reviews have so far failed to provide solid evidence, while action research and realist evaluation is concluded to be promising. Consequently, I suggest that more research within this field should be undertaken using realist evaluation framed within participatory action oriented approaches.

### 3. Rationale for the MEDCED intervention

#### Introduction

In this chapter I will present the content, the underlying assumptions and facilitation methods of the MEDCED-intervention. Firstly, as we are building on the Relation Related Care Intervention (RRC) (Testad, 2010), I will start by outlining the rationale and content of this study. Except for an initial update of literature concerning the prevalence and symptoms of Neuropsychiatric symptoms (NPS) in persons living with dementia, I refer to the theoretical foundation as outlined in the initial study (Testad, 2010), hereafter called the pilot study even though it was not conceptualised as such from the outset. The RRC intervention was tested twice in two nursing homes each time and the results are published in different papers (Testad et al., 2005, Testad et al., 2010a). However, for the MEDCED study I refer to Testad's doctoral thesis where these studies are referred to as a whole. Secondly, I present the theoretical foundation underlying the design and preparation for the dual role of facilitating the MEDCED intervention and at the same time participate as action researchers.

### Prevalence, symptoms and treatment of Neuropsychiatric symptoms

Cognitive symptoms and functional impairment have been at the centre of research on dementia. However, numerous studies indicate that more attention should be focused on neuropsychiatric symptoms as these are found to positively correlate with increased caregiver burden, earlier institutionalisation and higher cost of care (Yaffe et al., 2002, Gaugler et al., 2009, Murman et al., 2002, Cohen-Mansfield et al., 2012).

Recent studies have revealed that neuropsychiatric symptoms (NPS), also termed 'Behavioural and Psychological symptoms (BPSD) are experienced by virtually everyone during the course of living with dementia (Bergh et al., 2011, Selbæk et al., 2013). In addition to cognitive decline, NPSs are distressing symptoms in all dementia diseases covering psychiatric symptoms such as delusions, hallucinations, anxiety, depressive symptoms, or euphoria, as well as behavioural symptoms like agitation, aggression, apathy and wandering. A recent review including a total 8 468

persons participating in prevalence studies and 1 458 persons in longitudinal studies, concluded that the prevalence of individual neuropsychiatric symptoms varied substantially. Nevertheless, in the included studies, having at least one neuropsychiatric symptom was 'highly persistent' among the weighted mean of 82 % of the patients exhibiting NPSs (Selbæk et al., 2013). Agitation and apathy represented the highest prevalence figures among the identified symptoms.

Through a series of observational and environmental studies, Cohen-Mansfield and colleagues (2007; 2012) identified that several factors were linked with manifestations of agitated behaviour in older persons living with dementia, such as the physical and social environment, individual past experiences, medical conditions and depression and social isolation.

Previous reports indicate that NPSs in nursing home residents are treated with psychotropic drugs despite uncertain efficacy and considerable risk of adverse effects in patients living with dementia (Ballard and Corbett, 2010, Richter et al., 2012, Selbæk et al., 2013). Thus, non-pharmalogical treatment is advised as first line treatment even though small sample sizes and diversity of approaches have made it difficult to establish solid evidence to support such treatment. However, Cohen-Mansfield and colleagues have recently published a study they claim to be among the first to demonstrate significant effect in decline of agitation using a systematic nonpharmacological treatment called the "Treatment Routes for Exploring Agitation" (TREA). The study was conducted over a five year period where treatment to fit the person's needs, past identity, preferences and abilities was based on identification of the person's unmet needs. The findings of the study suggest that structural changes must be done in order to provide staff with sufficient time to observe individual agitated residents and 'determining unmet needs, obtaining appropriate intervention materials, conducting the individualized nonpharmalogical interventions, and evaluating the results' (Cohen-Mansfield et al., 2012):1.

# The pilot study 'Agitation and use of restraint in nursing home residents with dementia'.

The overall aim of the pilot study was 'to explore the frequency, correlates and consequences of agitation in nursing home residents with dementia, and whether

agitation and quality of care as measured by use of restraint and antipsychotic drugs, can be improved by means of an intervention consisting of staff training and support' (Testad, 2010):46). This was tested in an education intervention called 'Relation Related Care'.

### Theoretical foundation for the Relation Related Care Intervention

### Understanding the etiology of agitation

In the 'Relation Related Care' (RRC) intervention, agitation is understood as defined by Cohen- Mansfield and Billig as being inappropriate verbal, vocal or motor activity that is abusive or aggressive towards self or others (Cohen-Mansfield and Billig, 1986). Further, the activity is performed with inappropriate frequency or is being done in an unsuitable way according to social standards of conduct. Testad (2010: 24) argues that during the last decade, the concept of agitation based on the biomedical model focusing on physical conditions at the expense of psychosocial and emotional needs and consequently resulting in inappropriate use of psychotropic drugs, has been nuanced. Inspired by the person-centred holistic approach to persons living with dementia developed by Kitwood (1997), several causal factors to agitation have been acknowledged. Among these, the psychosocial and emotional needs and interpersonal interaction (Volicer et al., 2006) as well as considering the behaviour to disclose valuable information about the resident's condition (Algase et al., 1996). Thus, the change from a task oriented to a holistic, person-centred approach is increasingly advocated as vital to delivering good quality dementia care (Edvardsson, 2008, Edvardsson et al., 2008b, Testad, 2010, Cohen-Mansfield et al., 2012).

The intervention 'Relation Related Care' was created according to literature related to management of agitation in nursing home residents living with dementia. Based on literature concerning 'clinical manifestations and consequences', 'frequency and etiology', 'understanding agitation due to a) causes in the disease itself b) to unmet needs c) to causes in the physical or social environment', 'psychosocial treatment', 'pharmacological treatment' and 'treatment approaches in clinical practice' (Testad 2010:21 – 31), the following three steps were summarised to be important in order to identify the optimal psychosocial treatment of agitation:

- '1) Accurate description and understanding of the etiology of the behaviour
- 2) Correcting factors in the psychosocial environment that may lead to the behaviour
- 3) Identifying need-driven behaviour' (op.cit p 31).

Several elements were identified to be necessary to undertake this three step process. The essential knowledge and skills were described as requisites according to an individual, group and organisational level. The 'individual level' encompassed each nurse's knowledge and skills to accurately understand and describe the complex situation for a person living with dementia in the particular circumstances. The 'group level' focused on the ability for the nurses, as a group, to hold the same knowledge about a resident and as a group being able to provide person-centred care for each individual resident. The organisation's ability to support and be aligned with the need for individual care of each resident with dementia was requested at 'the organisational level'. In order for these levels to cooperate, the staff needed time to reflect upon the individual resident's situation by:

- '1) Viewing the situation as it is in the present
- 2) Consciousness and consequences of the measures taken in the present
- 3) Consequences for future care and situation of each individual resident' (Testad 2010: 32).

This in turn was argued to be entirely based on the relation and the ability to communicate between the care staff and the residents. When regarding the residents, the person's relations to family and the other residents should also be taken into account. Testad argued that this understanding was critical for the outcome and use of individualised interventions for residents with dementia.

### Agitated behaviour understood as need-driven behaviour

Regarding the care staff – resident communication, two foci were discussed. Firstly, the potential effect of 'elderspeak' in precipitating problem behaviours, and the particular threat 'elderspeak' represents for persons with dementia struggling to maintain self-concept and personhood through interaction with other people (Burgio et al., 2001). Elderspeak or 'Care speak'(Ward, 2008) typically encompasses simplistic vocabulary and grammar and inappropriate intimate terms like 'that's my boy' or 'good girl' as well as use of plural pronouns like 'why don't we go to bed?'

and tag questions like 'you want raise up now, don't you?'. Elderspeak was argued to be frequently used in care situations related to Activities of Daily Living (ADL), and especially when residents are resisting the care offered. Such situations are also found to involve use of restraint (Testad 2010).

The second foci encompassed that targeted interventions to improve care staff communication have been successful in educating behaviour management in dementia care (McCallion et al., 1999, Burgio et al., 2001) and understanding of the problem behaviours as unmet needs (Algase D, 1996) rather than 'disruptive or disturbing' (Kolanowski et al., 2010). These views are the basis for the 'Need-Driven Dementia- Compromised Behavior Model' (NDB) (Algase et al 1996) challenging the idea of dementia-related behaviour being simply a part of the disease process. The NDB model points to the interaction between, at one end, the relatively fixed factors of relatively stable and unchangeable background factors such as; neurological factors, cognitive abilities, and health status, including the physical functional abilities, psychosocial factors and premorbid personality. The more changeable proximal factors like physiological and psychological need status, as well as the physical and social environment, are described at the other end. The core assumption in the NDB model is that the need- driven behaviour is produced by the interplay between the enduring patterns of behaviour shaped by the relatively fixed factors, and the proximal factors induced by a need state. Algase and colleagues (1996) describe a need–driven behaviour to be the most integrated response a person living with dementia can create, given the limitations due to the dementia disease and the strengths preserved from the abilities and premorbid personality, as well as the hindering or supporting elements offered by the environment (Algase D, 1996, Buettner and Kolanowski, 2003).

Regarding care staff - resident relations, Testad (2010) argues the importance of viewing each interaction as a unique meeting of which the outcome depends on the carer's ability to interpret and understand the situation 'there and then', and act accordingly in terms of professional and ethical standards. Often, decision making in nursing homes is made by the staff closest to the residents. The direct care staff has therefore substantial influence on decisions regarding treatment and care such as use

of restraint and the need for medication. Thus, the link between professional and person-centred decisions and the quality of care measured by use of restraint and antipsychotic drugs were at the focus of the intervention in the pilot study (Testad 2010, p 33).

# Underlying assumptions, content and methods in the educational intervention of the Relation Related Care Model

A key assumption of the Relation Related Care Model is that by increasing the understanding of the total complexity of the situation (Plsek and Greenhalgh, 2001), including interpretation of the resident's behaviour from the viewpoint of the person (McCormack and McCance, 2010, Kitwood, 1997), targeted treatment can be implemented and consequently lead to improved care for residents with dementia. This will translate into prevention or reduction of the severity of agitation, as well as reduce the use of restraint and psychotropic drugs. Underlying this assumption is the necessity of addressing this complexity with the entire group of care staff and their leaders during an initial seminar and to continuously address the issue through guidance groups once a month for six months.

The RRC-intervention was developed and facilitated by two nurses, who between them had long experience with dementia and older people's care (IT) and teaching and coaching (AMA). As a part of her doctoral studies, IT was also responsible for trial testing the results. The aim was to enable

'care staff in nursing homes to understand dementia, understand and improve agitation, reduce or prevent use of restraint, improve quality of care and thus, improve quality of life in residents with dementia' (Testad 2010;48).

The hypothesis behind the RRC intervention is that a proper understanding of agitation in dementia to provide targeted treatment and person-centred care is an important way to reduce the use of restraint. Restraint is defined and classified by Testad into two groups; structural and interactional restraints. Structural restraints comprise measures of restraint outside the treatment and care-giving activity to protect the residents, such as locked doors on the ward, electronic surveillance and bedrails. Interactional restraints are measures within the care staff- resident relation

and care-process, such as force or pressure in medical examinations or treatment and force or pressure in ADL situations (Testad, 2010).

The decision-making process in caring was central in the RRC intervention. It involved coaching the care staff to make proper assessment, as well as understanding and relating to the care staff – resident situation and to provide targeted treatment and person-centred care. A 7- step coaching model (see 'Guidance' in table 2, p 71) was used to structure the coaching sessions. However, this model was regarded as the facilitators' tool and not shared with the staff.

By teaching all the staff in seminars and then offering coaching in the nursing home once a month, the objective was to increase staff ability to obtain information and seeing the range of options that may be revealed by a systematic and collective decision-making approach within the staff. Further objectives addressed staff potential to think positively of their own skills and their ability for new learning, both on their own and as a group. Further, the coaching addressed the staff's ability to stay involved in the changes and growth processes that were argued to be an inherent and never-ending feature in the process of caring.

### Methods and content of the seminar and group coaching

The RRC intervention consisted of an initial two day seminar involving all the care staff, taking place at a hotel with all costs covered by the research project. The importance for the staff having the opportunity to spend the evening together as a group was underlined and in particular the possibility as a group to 'look on their mutual situation from another perspective; outside their environment and day- to -day situation' (Testad 2010: 51). The group coaching took place in the nursing homes once a month.

The content, methods and structure of the RRC intervention were based on findings from a literature review (Aylward et al., 2003). For this review, Aylward and colleagues used a classification system developed by Green et al (Green, 1980) and modified by (Davis et al., 1992), wherein education intervention strategies are sorted by factors relevant to behaviour change in health promotion. When sorting the review findings related to the effectiveness of continuing education in Long Term

Care, Aylward and colleagues used 'predisposing, enabling and reinforcing' from the classification factors.

Predisposing factors encompassed primarily the communication and transfer of knowledge through lectures and written material designed to modify the attitudes and skills of the care staff, at the individual, group and organisational levels. *Enabling factors* include the conditions and available resources on the ward to implement new skills and interventions towards the residents, such as modified work schedules, treatment guidelines and practice opportunities. To ensure sustainability, reinforcing factors such as feedback and peer support were reported to be necessary to support new skills being practiced (Aylward et al 2003). The methods used in the RRC intervention according to the three above mentioned factors are outlined in Table 2.

The RRC- intervention content was presented as overall- and sub-themes in Table 2 below (cited from Testad 2010, 'Table 1'). However, as remarked in COCHRANE review published during our MEDCED planning phase (Mohler et al., 2011), specifications of allocated time for each theme, as well as fidelity issues such as number of attendants and details of protocol based delivery were lacking in the publications from the study.

Table 2 Methods used in the RRC intervention

Predisposing factors	Enabling factors	Reinforcing factors
SEMINAR:	SEMINAR:	SEMINAR:
Objective: provide a learning environment for staff to have a dialogue with educators to enable a mutual understanding of the situation as <i>is</i> within the group  Methods: One manual for each staff member containing the content of the seminar  Lectures Role play Presentation of clinical cases including positive and negative aspects of the complexity of care	Topic for lectures and discussions	Topic for lectures and discussions
GUIDANCE:	GUIDANCE:	GUIDANCE:
<ul> <li>Objective: every decision to use restraint towards their residents with dementia should be carefully considered on a team level, based on the resident's individual need and situation, and in his or her best interest.</li> <li>Staff presented a complex situation including reflections on 'restrain or refrain' related to one of their residents</li> <li>IT &amp; AMA coached and moderated the sessions following a seven step guidance structure (see table XY)</li> </ul>	<ul> <li>Was argued to be an important enabling factor including tools like:</li> <li>ways of elucidating resident's history and personality</li> <li>staff writing care diary between the sessions to turn bits and pieces into a whole picture of shared knowledge of the residents</li> <li>requires the leaders presence when decisions were made to ensure follow-up of the day-to- day care, regardless of the staff on duty.</li> </ul>	Providing the opportunity for staff to:  • reflect on the decision-making process, and the results experienced • being supported and receiving feedback by educators and colleagues.

<sup>&</sup>quot;Table 1 Education" (Testad 2010, appendix)

Seminar	Content	
1) Resident issues		
Dementia	Causes in the disease itself	
Dementia and BPDS	Causes in the physical or social environment	
	Causes due to unmet needs	
Treatment in dementia and BPDS		
	Psychosocial intervention	
	Pharmacological intervention	
Use of restraint	Definitions	
	Structural restraint	
	Interactional restraint	
	Competency	
2) Care staff issues	Perception, feelings and attitudes towards own, residents and care-staff – resident situation	
3) Resident- care staff relations	A double situation	
	Structure and Content	
	Universal and Special	
	Interaction and Experience	
4) Organisational and	To ensure individual's needs and preferences are met the RRC intervention also takes the context and structure's	
psychosocial environment	view, including physical, organizational and psychosocial environment.	
	The decision making process; Restrain or refrain?	
	Continuum of autonomy; Level of patient autonomy and care-staff control	
	Situation: Use of restraint	
Guidance	Description of the situation	
	Explanation, interpretation and understanding	
	Recognition and acceptance of care staff feelings towards the care staff – resident interaction within the situation	
	Reflection and mutual understanding of the situation	
	Intervention	
	Evaluation of the intervention	
	Tools:	
	Resident history	
	Care staff diary	

## What were the results of the pilot study?

Agitation was found to be common in Norwegian residents with dementia. The study concluded that a better understanding and effective management of agitation is warranted in order to avoid misdiagnosing the symptoms and also to reduce inappropriate use of drugs and restraint. In the first part of the study involving four NHs, significant reduction in restraint was found in the treatment group (54% in treatment group and 18% in control group). However agitation did not differ in the two groups. In the second part, also including four NHs, reduced severity of agitation and reduction in restraint were found, measured by a much smaller increase in the intervention group compared to the control group. After six months post intervention, sustained improvement showing less agitation was found indicating that a decrease in the level of agitation can be achieved by means of staff training. However, sustained reduction in use of restraint was not found. Therefore, Testad (2010) concluded that the results suggested that continuous coaching was necessary to achieve sustained reduction of restraint.

# The MEDCED study; theoretical foundation, organising, content and structure

We used the knowledge translation and exchange framework Promoting Action on Research Implementation in Health Services (PARIHS) to prospectively to guide the design, development and evaluation of the facilitation part of the MEDCED intervention. Not only when preparing the facilitators to undertake the role of translating the standardised intervention into the different local contexts, but also when preparing for the role as participant researchers. In addition to PARIHS we have used theories of individual and workplace learning (Billett, 2004, Eraut, 2012) to address the dynamism between staff members' ability and motivation to learn both individually and as a team, as well as the learning opportunities provided in the nursing home contexts.

Being a complex intervention (Craig et al., 2008) with several interacting components and in keeping with the obligation to provide transparent and comprehensive reporting of planned and actual adherence to intervention components (Chalmers and Glasziou, 2009, Glasziou et al., 2010), we have used the

Workgroup for Intervention **D**evelopment and **E**valuation **R**esearch (WIDER) group 'Recommendations to Improve Reporting of the Content of Behaviour Change Interventions' to register fidelity issues during the intervention period. The recommended registrations concerning whether the intervention was delivered according to the protocol are included in the template for the reflection notes written by the facilitators after each seminar and coaching session (appendices 3 and 4).

#### **Theoretical frameworks**

### The Promoting Action on Research Implementation in Health Services (PARIHS)

PARIHS has been developed as a conceptual framework inductively, based on the originators' experiences as change agents and researchers in health services. Informed by Diffusion of Innovation Theory, various organisational theories and humanism, the framework proposes that successful intervention of evidence into practice depends on the inter- relationship of three key constructs related to a) the nature of the evidence, b) the quality of the context and c) expert facilitation (Kitson et al., 2008, McCormack et al., 2002b, McCormack et al., 2009b). Since first published in 1998, several concept analyses have been undertaken (Harvey et al., 2002, McCormack et al., 2002b, Rycroft-Malone et al., 2004b). Research papers on PARIHS have reported good construct and face validity and the framework has been included in several reviews of knowledge translation and research studies over the last decade (Rycroft- Malone, 2010, Helfrich et al., 2010 {Stetler, 2011 #2450, Pentland et al., 2011). Due to this, the originators are "reasonable confident that PARIHS is a conceptually robust framework" (Rycroft-Malone and Bucknall, 2010):109).

Within the framework, facilitation is conceptualised as the process of enabling the implementation of evidence into practice. This is achieved by an individual, often external to the organisation, carrying out a specific role aiming to help others (Harvey et al., 2002). 'Facilitation' includes three sub-elements; the purpose of facilitation, the facilitators' role as well as their associated skills and attributes (Op. cit). The purposes of facilitation are expressed in the PARIHS framework to be either 'task-oriented', which means to support the achievement of a specific goal, or

'holistic-oriented' in terms of enabling individuals or teams to reflect on evidence informed knowledge and changing their attitudes and ways of working. The two purposes are placed as endpoints on a continuum with the role of facilitators and their associated skills and attributes ranging from providing task-oriented assistance to enabling individuals or groups to alter their ways of thinking and working (Harvey et al., 2002, Kitson et al., 2008).

On the task-oriented end of the continuum, the facilitator might engage in episodic contacts and provide practically focused help, which requires strong management/technical skills but a relatively low level of intensity. This in contrast to the holistic-oriented end of the continuum where the facilitator might focus on building sustained partnerships with teams to assist them in developing their own practice and changing skills. The more holistic oriented approaches are anticipated to require a relatively high level of intensity (Helfrich et al., 2010). The notion that facilitation involves two major elements of 'supporting' and 'enabling' practitioners to improve practice through evidence informed implementation was recently supported by findings in a focused review of the concept and meaning of facilitation. A new finding was that project management and leadership emerge as key aspects of facilitation with facilitators taking on project leader roles (Dogherty et al., 2010).

Regarding context, McCormack and colleagues (McCormack et al., 2002a) acknowledge that the context of health care 'can be seen, on one level, as infinite as health care takes place in a variety of settings, communities, and cultures that are all influenced by a variety of factors, for example, sociocultural, political, economic, and historical factors' (Kent and McCormack, 2010):2).

However, in keeping with the original simplistic idea and arguing that evidence suggests that nurses have the strongest links to their immediate work setting and less so to the overall organisation, the content analysis for the PARIHS framework refers to the environment or setting in which the proposed change will be implemented and where people receive health care services. In other words; 'in the physical environment where practice takes place' (Kitson et al., 1998).

Framed within the understanding that the boundary of the work setting shapes the way workers experience the health organisation and consequently how 'such things as evidence are translated into practice', the identified contextual factors included in PARIHS are categorised within three broad sub-elements: culture, leadership and evaluation; each of which contain characteristics in a continuum spanning from weak to strong (Kent and McCormack, 2010):2.

Within 'culture', it is proposed that organisations that could be described as 'learning organisations' (Senge, 1990) are more likely to favour change. Structures such as decentralised decision making, facilitative management styles and a focus on the relationship between managers and workers are characterising features within learning organisations. As such, these elements would be regarded towards the 'high' end of the context continuum.

In creating these cultures, 'leadership' is suggested to play a vital role and it is proposed that 'transformational leaders' being 'committed to allowing themselves and others to optimise their skills, abilities, knowledge and potential' are the most effective in creating the context where evidence-based practice is more likely to be implemented (Kent and McCormack, 2010):18). In addition to the transformational approach, sub-elements such as role clarity, effective teamwork, effective organisational structures, leaders performing democratic and inclusive decision making processes as well as having an empowering and enabling approach to teaching/ learning/ managing were supposed to increase the potential successful implementation of evidence.

'Evaluation' as the last sub-element of context, comprises how evaluative mechanisms such as "peer-review, user-led feedback, and reflection on practice, as well as evidence from systematic literature reviews, meta- analyses and audits of effectiveness" (op cit:19) are used to create both the expectations for the practitioners to enhance practice as well as creating the conditions they need to do so. However, as the context of practice is complex and dynamic, difficulties remain as to how these elements relate to each other and if one is more influential than another (Kent and McCormack, 2010, Rycroft-Malone and Bucknall, 2010).

In their evaluation of the PARIHS framework, Kitson and colleagues (2008) state that facilitation of an intervention has to be context, process and time-specific. In order to implement an innovation successfully, each individual and team need to be clear about the particular support they need. The evidence derived from existing literature also suggests that tailoring facilitation to the local context is critical. There is a growing focus on evaluation that links outcomes to action, for instance observation of positive outcomes resulting from changing practice (Dogherty et al., 2010).

Thus, the concept of facilitation needs to be further refined and tested (Kitson et al., 2008, Pentland et al., 2011). Dogherty and colleagues emphasise that further research is needed into how facilitation is used to make changes in health care (Dogherty et al., 2010). They also highlight the importance of describing the research methods and facilitation interventions in detail. This information could then be used to develop and expand the contribution of facilitation as a means of bridging the gap between research and practice.

To increase the framework's utility for KTE activities, the originators of PARIHS argue the need for more research to further clarify the linkages between the concepts of 'evidence', 'context' and 'facilitation', as well as testing the utility of the framework in different international settings (Kitson et al., 2008, Pentland et al., 2011).

In the MEDCED study, we have used PARIHS both as a conceptual and theoretical framework to guide the educational intervention process, as well as the evaluation of how the conceptual elements of context and facilitation interrelate and interact in phase two of the standardized education intervention (EI-2). In line with the conceptualisation of PARIHS, the facilitation in the MEDCED intervention is holistically oriented with external facilitators designated the specific role of initially teaching the rationale for, and the theoretical underpinnings of, the TFT model during the 2- day seminars. Aiming to enable individuals and teams to find alternative person-centred and confidence building measures to restraint and psychotropic drugs, this knowledge was thereafter contextualised to the different nursing home settings when the facilitators coached the staff once a month related to

challenging situations with agitated residents living with dementia. All staff and their ward leaders were expected to participate and to collectively decide which situations related to their residents that they would bring forward and prepare to be focused on in the monthly coaching sessions.

### Learning theories and workplace learning

The education intervention in MEDCED is designed to improve or change the staff team-based decisions in finding alternative strategies to the use of restraint and psychotropic drugs, through increased knowledge of dementia, juridical regulations and the principles of person centred care for persons living with dementia. The key challenge is how to best facilitate knowledge translation when the knowledge should not only be seen as a separate acquisition, but as part of a larger, more complex and ever changing workplace context.

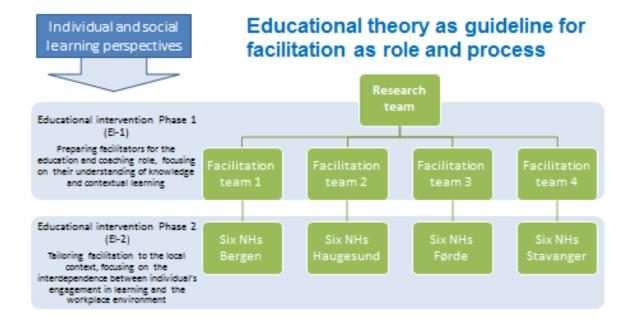
Thus, the choice of methods are framed within a cognitive and sociocultural learning perspective wherein the understanding of why and how contextual factors and situations influence individual and team learning are combined with the understanding of why and how people learn (Hager and Hodkinson, 2009). Congruent with the PARIHS framework, we rely on scholars within organisational learning arguing that the individuals learn through participation in a social setting where they can take part in tasks to extend their knowledge whilst at the same time being offered direct coaching that is required to learn putting difficult or complex knowledge into use in clinical practice (Eraut, 2012, Billett, 2004, Senge, 1994, Salomon and Perkins, 1998).

Consequently, in the MEDCED intervention, we expected that the leaders took part in the learning sessions because of their particular responsibility to provide the workplace qualities that are necessary to put the TFT model into use in the NHs. According to Billett (2004), such qualities are shaped by workplace hierarchies, team affiliations, personal relations and cultural practices. Accordingly, informed by the learning perspective of Eraut (2012) and Billett (2004), we considered both the individual learning dispositions and their relationships with the workplace cultures where they are going to learn, when we designed the intervention.

### Organising of the Educational Intervention (EI) in the MEDCED study

The education intervention was led by the MEDCED research team at our Care Research Centre. I was responsible to design and organise the role of facilitating the intervention. Four teams consisting of one nurse from the Centre for Development of Institutional and Home Care Services and one assistant professor from the nursing schools in Bergen, Haugesund, Førde and Stavanger facilitated the education and coaching of the decision-making model in the NHs. The Educational intervention (EI) is carried out in two steps, firstly from researchers to the educators (EI-1) and secondly from the educators to the NH staff (EI- 2). See fig 2.

Figure 2 Organising the EI in the MEDCED study and preparing for the dual facilitation – and co-researcher role



## Content and methods in the educational intervention in the MEDCED study – facilitator roles

As described earlier, both the facilitators and some of the researchers (TEM,  $S\emptyset$ , EMT) participated to revise the seminar content and methods used in the pilot study. Basically the changes are related to a different objective in the sense that we in our intervention were aiming for the staff to be able to use the decision- making model

without help from external facilitators post-intervention. In the pilot study Testad (2010) had drawn on positive experiences from psychiatric wards when staff coaching was integrated in the daily structures. With the results from the intervention she had aimed to prove that continuous coaching also should be offered to staff working in nursing homes. Consequently, she did not disclose the 7-step model (table 3) to the staff as this was regarded as the educators' tool.

In contrast, in the MEDCED intervention, we have made sure that this 7-step model is used and explained in relation to the different themes in the manuscripts that the staff were given during the seminars. The model was also continuously referred to during the seminars, and all the nursing homes were given a mini-poster describing the seven steps in the decision-making model.

Thus, in addition to organising the intervention in two phases, first educating the facilitation teams (phase EI-1) and thereafter the facilitation targeting the nursing home staff (EI-2), the changes made in the MEDCED intervention include issues such as; a) the pedagogical methods and disclosing the 7-step coaching model, b) a better lay-out for examples and figures, c) the use of a case "Per" as a red thread and core example throughout the whole intervention, and d) less power-points and more space for dialogue during the seminar.

The original 7-step decision-making model (Testad et al. 2005) was employed in an unchanged form, while the method of facilitation and the content of the written education material were updated in cooperation with the facilitators during the pre-intervention phase (EI-1). The updated and replaced literature covered themes such as; the use and reference to person centred care and person centred nursing, amendments in the Patient Act's law, theories of ethics and communication. Description of material and methods used in the MEDCED intervention is presented in Table 3.

Table 3 Educational material and methods in the MEDCED intervention

Faciltating the seminar /programme for the seminar	Facilitating the coaching	
<b>Content:</b> manual, powerpoints, time schedule and set programme including poster of the TFT- model.	<b>Content:</b> TFT- model and "the seven steps" – manual to elaborate how the facilitators can use the different steps + poster	
The attendants got:	The attendants got:	
<ul> <li>One manual each in a A4 size with the powerpoints used, introduction text explaining the rationale for the intervention and generous space for their own notes. They were advised to use this as a reference during the whole intervention and also bring it to the coaching sessions.</li> </ul>	<ul> <li>The manual and the 'mini-poster' of the TFT-model</li> <li>The "seven steps" in the TFT- model are identical to the one used in the pilot study, and the facilitators used the same structure for every coaching;</li> </ul>	
• A mini-poster for each nursing home with the element of the decision- making model and the "seven steps" of the coaching process. They were advised to display it in the staff room or other places where it could be easily accessed and act as a reminder of the ongoing intervention.	<ol> <li>Description of the situation</li> <li>Understanding of the situation</li> <li>Recognition and acceptance of care staffs' 'situation &amp; feelings towards the care staff – resident relation</li> <li>Reflecting on the patient situation and the care staff – resident relation</li> <li>Problem-solving &amp; choice of intervention/ measures</li> <li>Perform the intervention/measures</li> <li>Evaluation of the intervention/measures</li> </ol>	
	• The facilitators wrote a summary after each session of the decisions made,	

and used this in the beginning of the next coaching as an introduction to the step they were to continue. One of the attendants took notes and wrote down the decisions they had made and agreed to follow-up by the next month's coaching. • They were given a coloured hardback notebook for these notes (care staff diary). In addition, they were expected to note observations or issues they wanted to share in the next coaching session. Time schedule and procedure for the seminar: Time schedule and procedure for the coaching: See appendix 3 One hour each time in the nursing homes, preferably not in the duty room. Used the same structure each session starting with 'Step one'. The number of steps they were able to fulfil per coaching session depended on the complexity of the situation presented. The facilitators recorded in the reflection notes (appendix 4-5) how many steps they were able to fulfil per session. The facilitators started the next session by reading the summary they had written from the last session, focusing on what the staff had agreed to fulfil in the meantime. Thereafter, the staff reported or read from the care staff diary, and they continued until they agreed to finish the case. Either because they had succeeded in finding alternative measures to avoid restraint, or with a decision to report the use of restraint according to the law because other measures had been tried, found and documented to be insufficient.

### **Conclusion**

This chapter has presented the theoretical foundation related to the choices of content and methods in the MEDCED intervention. I have shown that distressing neuropsychiatric symptoms (NPS) are experienced by virtually every person living with dementia. Further, that these symptoms are not only affecting the persons themselves; they also increase the caregiver burden and cause earlier institutionalisation and increased cost of care. In line with findings from the 'Relation Related Care' intervention representing the pilot for the MEDCED intervention, promising results have been obtained when NPS are understood as unmet needs and resulting in care staff trying to find person centred and alternative non-pharmacological treatment. Thereafter, the rationale and content for the education intervention in the pilot study are outlined, followed by a description of the alterations of content and pedagogical methods that we did in the MEDCED intervention. Next, I describe the elements in the Promoting Action into Research Implementation in Health Services (PARIHS) framework we chose to use prospectively to guide the MEDCED study. In addition, I have argued the need for learning theories that pay attention to contextualised workplace learning that accounts for both the individual- and team based motivation and abilities for learning, and described how we have used such theories to prepare and frame the facilitation of the MEDCED intervention in two phases. The chapter ends with a detailed description of the content and methods the facilitators applied in the seminars and coaching sessions in the nursing homes.

## 4. Guiding worldview, epistemologies and methodologies

### Introduction

In this chapter I describe my understandings of reality and reason, as well as the epistemological and methodological assumptions influencing the choice of research questions and methodological approach when attending to the purpose of our research project. Whether or not it poses problems to mix trial with participatory action research and ethnography when evaluating the MEDCED intervention will be discussed with reference to a recent debate between scholars of 'Realist evaluation'.

I argue that the assumptions of the participatory worldview (Reason and Bradbury, 2011) and the broadened epistemological framework of understanding knowledge and power in participatory action research suggested by Park (Park, 2011) have been clarifying. This was found particularly appropriate when attending to the dual objectives of measuring effects of the MEDCED intervention and simultaneously aim to understand the promoting and hindering factors influencing the potential success of the implementation in the nursing homes. Due to the twin legacy from positivistic and constructivist paradigms and the consequent claim that the appropriateness of the research questions should guide the choice of methodology in the MEDCED study, the participatory worldview has been helpful in choosing to combine Cluster- Randomised Controlled Trial positioned in a positivist influenced tradition with Participatory Action Research (PAR) and Ethnography rooted in the constructivist tradition.

In the PAR study, however, during the course of the action - reflection cycles with the coresearchers I identified a need to facilitate a 'communicative space' (Kemmis, 2011) that ensured and stimulated an authentic participatory analysis and knowledge construction. Relying on two sources of inspiration, I discuss whether the broadened epistemology for participatory research needs to be further extended; firstly, from the Australian based philosopher Nicholas Kompridis (2006), who argues for a renewed and reoriented critical thinking. Secondly, from McCormack and Titchen's (2006; 2011) 'critical creativity worldview' in which the critical paradigm is blended and balanced with creative and ancient traditions. Particularly related to transformational action research holding human flourishing as both end and means, it might be necessary to also encompass 'embodied knowledge' and the 'power of creativity' in a framework for participatory research.

## Worldview and epistemological assumptions underpinning research

As researchers it is important to acknowledge that our ontological assumptions and beliefs about reality and reason and in particular the reality that is the object of our research, matter a lot. These assumptions determine what knowledge we will be looking for when we define our research questions and decide upon appropriate methods to use. In action research (AR), the concept of 'worldview' is used to express the researcher's ontological stance in terms of the fundamental cognitive orientation that encompass the entirety of their knowledge and perspectives of both fundamental, existential and normative postulates as well as values, emotions and ethics (Palmer, 1996). The concept is rooted in the German word 'Weltanschauung' and central to the German philosophy in referring to a wide world perception (Etymonline.com.). In contrast to the concept of 'ontology' being analytically concerned with the philosophical questions related to what entities exist or could be said to exist, and how to group these within a hierarchy of similarities and differences (Searle, 2008). Worldview also refers to a framework of ideas and beliefs that form the comprehensive description through which individuals or groups of researchers regard, interpret and interact in the world. Thus, the concept of worldview is found to be more appropriate to account for the researcher's stance according to fundamental differences grounded in action research. According to Reason and Bradbury (2011) AR approaches are fundamentally distinguished by its purpose, the relationships between participating actors, the ways knowledge is conceived, as well as its relation to practice.

However, scholars within more traditional approaches have also voiced that ontology in terms of the philosophical study of 'the nature of being, becoming, existence and reality' have caused problems when applied to methodology discussions. Within mixed methods social and behavioural research, (Biesta, 2010) holds that it is the distinction between what he refers to as 'mechanistic ontology' and 'social ontology' that have created the greatest controversies and alleged opposition between qualitative and quantitative research or paradigm. Typical for the mechanistic ontology would be to approach the world as a system of inherent causes and effects; with deterministic connections between them. In contrast, the world within a social ontology would be seen as one of 'meaning and interpretation' (Op cit. p 103). In the context of social and behavioural research, the first approach would primarily concentrate on questions of causality. The aim would be to predict and control human action based on understanding of the causes for actions and the laws governing this causality. The second approach would rely on assumptions of human actions being motivated and thus aim to

answer why people act as they do by looking for people's intentions and their reasons for acting in particular ways (Biesta 2010).

I relate to Biesta finding it remarkable that the discussions have seemed to focus particularly on epistemological questions about the 'world- mind scheme' (op cit:111) of the subjectivity and objectivity of knowledge such as; how it can be possible for the human mind to obtain knowledge of a world outside itself, as well as ontological questions about causality and the specific nature of social phenomena (op cit:103). The discussion about the 'purpose' of the research has been oddly absent. Given that it is the decisions of the wider purposes of research that frames the research and not the other way around, Biesta argues that it is important to discriminate between research that seeks to 'explain' and research seeking to 'understand'. Nevertheless, he contends that the purpose of research should be separated from the ontological assumptions even though the distinction between explaining and understanding may be mapped 'relatively neatly' onto the distinction between a mechanistic and social ontology. This, he points out, is because the connection between the purpose of the research and the ontological assumptions informing the research is not as strong as previously assumed. Particularly within the social and behavioural domain, the distinctions between explaining and interpretation are not clear-cut, and;

'The fact that research in social and behavioural domain can find regularities and correlations that give the impression of a degree of causal connectedness does not automatically commit the researcher to adoption of a mechanistic ontology, because many of the connections that exist in the social domain are actually achieved through interpretative arts' (Biesta 2010:104).

Consequently, he suggests replacing the assumptions that the different dimensions involved in discussions of mixed methods research are connected to paradigms in terms of 'tightly clustered set of assumptions', often imprecisely labelled as positivist or constructivist paradigms. Instead, Biesta suggests that the different elements and dimensions involved, such as; data, methods, design, epistemology, ontology, purposes of research and practical roles between research and practice, should be looked at separately. By doing so he maintains, it will be possible to identify with more precision whether the different aspects involved in the mixed research are unproblematic, as well as single out areas that need further attention.

For me, a recent debate related to realist approach to evaluation of health intervention presented an example of the problem Biesta refers to as 'imprecise labelling'. The typical aim within a realist approach would be to provide explanatory analysis to 'discerning what works

for whom, in what circumstances, in what respects and how' (Pawson et al., 2005):1). The philosophical foundation is inspired by scientific realism sharing a number of elements with critical realism in accepting that there 'is a real reality independently of the researcher (natural realism), but that knowing this reality through science is unavoidably relative to the researcher (relativist epistemology)' (Pawson and Tilley, 1997):195). However, it is the characteristic understanding of causality that hallmarks realist inquiry. Unlike the linear causal assumptions underpinning clinical trials that causality is established when cause X in an experiment is followed by effect Y, the generative causality assumptions in realist inquiry holds that

"...to infer a causal outcome (O) between two events (X and Y), one needs to understand the underlying mechanism (M) that connects them and the context (C) in which the relationship occurs' (Pawson et al., 2005):21-22.

From this follows that realist evaluation considers that structural and institutional features exist independently of the actors and researchers. However, the actors have also a potential for change by their very nature. This is why the core of realist evaluations (op cit) concerns hypothesis and testing of Context-Mechanism-Outcome (CMO) configurations in terms of what it is with a particular programme that works for whom in what circumstances.

The debate between Marchal, Westhorp, Wong, Van Belle, Greenhalg, Keegels and Pawson (Marchal et al., 2013) on the one side and Bonell, Fletcher, Morton, Lorenc, and Moore on the other, started when Bonell et al (Bonell et al., 2012) voiced their concerns that RCTs in health interventions have focused too much on the internal validity of the trial. Too much emphasis have been put on questions of efficacy rather than addressing the broader questions of reach, effectiveness, adoption, implementation and maintenance (Glasgow et al., 2006). However, by referring to studies where trialists (Breitenstein et al., 2010, Hawe et al., 2004) in public health have acknowledged the issues of balancing to maintain fidelity whilst simultaneously having enabled adoption of the intervention, Bonell and colleagues proposed that theory based RCTs could play an important role in increasing the utility of complex health interventions (Bonell et al., 2012). By prospective use of theories to identify and discriminate between elements that can be flexible and elements that must remain fixed, Bonell and colleagues argue that the integrity of an intervention's key functions (i.e. the elements in the process of change that the intervention components aim to facilitate) can be maintained. At the same time flexibility is allowed to contextualise the specific actions used

in the intervention process to achieve the intended change. By doing this, they argued for 'Realist –RCTs as a useful tool within realist evaluation.

However, their proposition was opposed by Marchal and colleagues calling 'Realist-RCT an oxymoron'. They argued that the adjective 'realist' should be reserved to studies based on a realist philosophy with analytic approaches that follow the established principles of realist analysis. Still, they support the intention of enhancing the utility of RCTs by using theory to inform the interventions. The reason why they find 'Realist RCT' to be an oxymoron is because they assume that RCTs fundamentally are built upon a 'positivist' ontological and epistemological position. Thus, they consider a proposal for a 'Realist RCT' to be based on flawed interpretations of the key elements of both complexity theory and realist evaluation, both of which they find represent major challenges for the RCT design.

Bonell and colleagues responded to the critique by stating that 'methods don't make assumptions, researchers do!' and refute the allegations from Marchal et al of underlying philosophical principles making RCTs and realist evaluation incompatible (Bonell et al., 2013). Along with Biesta's position described above, they find Marchal et al's use of 'positivism' imprecise and refer to Oakley having characterised the term as a 'source of abuse' rather than illumination in the social sciences (Oakley, 2000). Thus, whilst Marchal and colleagues propose that the RCT sits within a 'positivist' ontology and epistemology and therefore is incongruent with realist assumptions, Bonell et al (2013) argue that methods are a-theoretical / a- paradigmatic. In the case of incompatible assumptions, these sit within the researchers' heads and not within the methods. Referring to their own positions as researchers, they claim support for the positivist proposition of a 'real' world existing independently of researchers' perceptions, whilst they do not agree to assumptions of for example, that the reality is governed by stable laws. With reference to Bhaskar (Bhaskar, 1998), Bonell et al persist that their own ontological and epistemological positions remain the same whether they use trials or other non-experimental designs. This is because they acknowledge that whilst social phenomena cannot be studied in exactly the same way as 'natural subjects', it is still possible to study them as 'social objects'.

RCTs can therefore play an important role in increasing the potential utility of policy recommendations also related to complex health interventions. If used carefully and based on assumptions that effects are contextually influenced, Bonell et al (2013) conclude the hitherto last published paper in this discussion stating that a mix of RCT and process evaluation may

be promising provided that the researchers make clear that their ontological and epistemological assumptions are congruent with realist philosophy. Thus, for the purpose of promoting health and reducing health inequalities more effectively, RCTs should be seen as a useful tool within a realist philosophy enabling realist evaluation to be more rigorous and useful, rather than isolating the method due to what they define as naïve philosophical and methodological assumptions.

Like the position of Biesta (2010) and Bonell and colleagues (2012; 2013), I agree to the importance of first clarifying the purpose, philosophical and epistemological positions for our research. Thereafter, the specific methods to use based on the appropriateness related to the chosen research questions should be decided. As indicated in the introduction, for the purpose of finding possible explanatory answers to the effect of the MEDCED intervention and understanding how contextual and facilitation elements influence the implementation process, we have framed the research within the participatory worldview (Reason and Bradbury 2011) and Park's broadened epistemological framework for participatory action research (Park, 2011). During the course of the study I included assumptions from the critical creativity worldview (McCormack and Titchen, 2006, Titchen et al., 2011) to ensure authentic participatory data analysis and knowledge co-production.

# Attending to the purpose, philosophical and epistemological assumption of participatory action research

Similar to other approaches to research, the purpose of AR is to develop knowing and knowledge systematically. However, this approach differs from traditional academic research in several ways, such as; the purpose, the basis of relationship between the researchers and participants in research, the way knowledge is conceived and the relation to practice (Reason and Bradbury, 2011). According to Reason and Bradbury, it is important to recognise that these dimensions are fundamentally different from other understandings of inquiry and 'not simply methodological niceties' (op cit: 1). Thus, they propose that when joining knower with known in participative relationships, there is a need for a 'participatory worldview'; a worldview of which they propose as a third alternative to the empirical- positivist worldview of the Enlightenment and the post-modern understanding of the role of language in creating our world.

### A participatory worldview

According to Reason and Bradbury (2011), unlike a *positivist worldview* regarding science as separate from everyday life, the *participatory worldview* is based on the metaphor of

participation. In a positivist paradigm, the researcher is regarded as a subject in a world of separate objects operating according to natural laws that can be identified and known objectively by rational humans when using analytical thoughts and experimental methods. In contrast, within the participatory paradigm, both human persons and their communities are envisaged as simultaneously being embodied in, and co-creating, their world.

However, the participatory worldview 'draw on the twin legacies of the exact sciences and the humanities' (Reason and Bradbury, 2011):5). Congruent with a positivist perspective, it is argued that there is a 'real' reality where the researchers take part and that this reality exists independently of the researchers' perception. Following the constructivist perspective, in addition, the situated nature is also acknowledged in that all attempts to articulate this 'reality' and create a shared reality will be influenced by the role of language and cultural expressions. Consequently, within a participatory worldview that sees inquiry as a democratic and practical process of coming to know, Reason and Bradbury argue that the dual perspective enable the choice of research strategies in action research to be based on reflections on their appropriateness, or not, for the actual inquiry objectives. When appropriate and provided explicit explanation of the underlying knowledge creation perspectives, the authors argue that the participatory worldview allows researchers to include techniques and knowledge of positivist science while framing these within a human context (Op.cit:7). For this purpose, Park argues that there is a need for a coherent and comprehensive epistemological framework of knowledge for participatory research (Park, 2011),

### A broadened epistemological perspective of participatory research

The conventional western epistemological horizon should, Park argues, be broadened to produce a more complete understanding of knowledge; both in research and in our lives in general. While Park holds that 'objective knowledge' may be clearly valuable in terms of describing, explaining or understanding a phenomenon as an object in research of human and social problems, he argues that participatory research will fail its objective to create 'new kinds of human and emancipatory knowledge' (Gaventa, 1993) if participatory research is limited only to this kind of knowledge. Situated within participatory action research (PAR), he argues that a coherent and comprehensive epistemological framework for participatory research should be grounded on a conceptualisation of the main activities involved as forms of knowledge that exceed knowledge inherited from positivistic sources. Going beyond Habermas' theory of communicative action, Park introduces the notion of *relational* 

*knowledge* in addition to the *representational* and *reflective* knowledge that er already embedded in Habermas' theory (Park, 2011).

Similarly, in his book 'Critique and Disclosure, Critical Theory between Past and Future', Kompridis argues that in order to learn from our interactions with each other and with the world, the effects of the dominant forms of reason and learning processes 'only in the light of criticisable validity claims' (p 236) must be overcome in order to make room for neglected, devalued and suppressed forms of reason (Kompridis, 2006).

Kompridis refer to Hegel's early work and to Heideggers' idea of 'world disclosure' in terms of critical thinking having the potential to reveal oppressive and unjust situations and societies (op cit: 31). Kompridis argues that the procedural and context- transcendent rationality needs to be supplied with a 'romantic – expressive understanding of reason'; that is, the role of reason having the possibility to unveil the world through reflective and critical interventions of various kinds. Kompridis acknowledges that the idea of reason as a 'world- disclosing activity' may seem strange because of the habit of leaving 'such secondary activity' (secondary to truth-tracking activity) to the 'imagination' (p 238). However, he insists that reason does and always is, revealing the world through reflective and critical interventions.

According to Kompridis (2006) for critical theory to respond to the need of our times, it must exceed Habermas' notion of the principle of modernity as 'the orientation to non-local, context- transcendent justification' (p 240). Instead, Kompridis argues that in times of change and transition, the way Habermas closely indentified reason and non-contextualised practices of justification need to be supplied by a 'possibility-disclosing role of reason'. Kompridis argues that Hegel was able to visualise this ability of revealing new opportunities because he viewed reality as whole and situated in time and place. Hegel did not disconnect the individual components of 'the constellation among modernity, its time-consciousness, and rationality' from one another. Kompridis purports that Hegel anticipated an idea of reason modelled on an idea of freedom, seeing reason as:

'the art of making transitions from old to new languages of interpretation and evaluation, an idea of reason as the cooperative disclosure of passageways through which the different voices of reason may pass, and continue to pass' (p 241).

The relevant notion of freedom in this is neither to be understood as 'freedom from external constraint', nor freedom in the sense of 'freely willed conformity to a principle of action' (p 241). Rather, it is the idea of freedom drawing its normativity from the notion of possibility,

and the prospect of a new beginning. Based on this rationale, Kompridis argues the need to acknowledge the dependence on history, culture and language, and subsequently reformulate our normative conception of reason to also incorporate the possibility to discover new opportunities. It is by engaging in such activity that makes visible the relevant connection between reason and freedom. Especially in the challenging and exhausting times we live in, Kompridis purports there is a need for:

'...cultural practices that can reopen the future and unclose the past, cultural practices that can regenerate hope and confidence in the face of conditions that threaten to make even their regeneration meaningless. Philosophy, critical theory, critique, whatever name one wants to use, have been and can still be possibility-disclosing practices' (p 277).

While the urge for disclosing possibility may sound rather romantic to some ears, Kompridis reminds us that the philosophical discourse of modernity was indeed a romantic discourse of the Enlightenment. With reference to some of the principal participants in this discourse, philosophers like Nietzsche, Heidegger, Arendt, Dewey and Foucault, Kompridis argues that they were all sharing romanticism. Thus, they were connected in their passionate interest in how things might be otherwise, and their critique of 'the narrowness and destructive character of the Enlightenment project' (278).

The problem with critical theory today, Kompridis argues (p 278), is that it has become conservative of possibilities and drained of 'utopian energies'. Without the romantic insight of the early philosophy of Hegel into the connection between the consciousness of crisis and the possibilities of transformation, critical theory has become unromantic. In principle, as Kompridis sees it, critical theory has turned into a theory of the normative order of democratic societies and thus, being retrospective and inclined towards conservatism. However, this should not be mistaken as conservatism of a political kind, but rather conservative in terms of lacking the romantic passion about future possibilities that is threatening critical theory today.

In addition, he argues that critical theory has discarded its romantic past due to what he sees as a common and mistaken assumption rooted in the Habermasian view of democratic politics being grounded in normative procedures. Such mistaken notions make it impossible for critical theory to be romantic without being antidemocratic. However, Kompridis refers to and argues that there is no contradiction if critical theory is related to the assumptions of Dewey, Arendt and Castoriadis viewing democratic politics as grounded in the human capacity of beginning anew.

Kompridis concludes his book stating that critical theory 'becomes literally deaf to its calling' in our present times if it abandons its romantic self- understanding. He can see no way of being critical without being romantic. Rather, he sees this as the only way critical theory can respond to 'modernity's relation to time and its need for hope and confidence' because 'the availability of confidence and hope depends on discourses and practices that facilitate the enlargement meaning and possibility' (p 279).

With reference to critical theory's relation to historical revolutions in the pursuit of justice and democracy, Kompridis proposes that while notions of revolutions are not viable today, the practice of 'cooperatively disclosing the world anew' could replace the role of earlier time's revolutions in the pursuit of social and cultural change. Unlike revolution, social transformation depends on social cooperation. Therefore, critical theory could by the practice of reflective disclosure, be more receptive to its calling in present time and:

"...once again take on the task of disclosing alternative possibilities, possibilities through which we might recapture the promise of the future – through which we might recapture the future as a promise?" (p 280)

As previously mentioned, in his broadened epistemological framework for participatory action research Park (2011) shares the notion of going beyond the communicative action and include the ideas of cooperative relations by suggesting a third subtype of knowledge added to Habermas' representational and reflective. By calling it 'relational knowledge' Park also wants to emphasise the need to recognise as rational our affective and processual knowledge for other human beings. However, as we will see, even though the romantic dimensions of critical theory are embedded in the philosophical underpinnings of participatory action research, it is not specifically conceptualised in the three knowledge types Park suggests for his epistemological framework.

Park divides representational knowledge into a 'functional' and an 'interpretive' subtype based on its influential capacity. The first subtype portrays a person, a thing, an event or an experience as being related, as a variable, to some other variable or variables in a functional matter. According to Marchall et al (2013) it is generally agreed that this type of knowledge is related to objective assumptions claiming that because causality between variables cannot be observed, researchers need to demonstrate how observed outcomes can be attributed to particular interventions in a regular manner. Preferably this should be done by using quantitative data collection and statistical techniques like linear regression and cluster analysis. Thus, correlational and causal relationships are typical examples of the 'functional'

form of representational knowledge. The instrumental power of this functional form is related to the 'capacity to make predictions by showing antecedent events leading to probable consequences, which makes it possible, in theory, to produce desired events or to prevent undesirable ones' (Park 2011:85).

The methodological approaches within the functional subtype of representational knowledge separate the researcher, as the knower, from the object of inquiry and the knowledge creation processes are characterised by being analytic and reductive.

The 'interpretive' subtype on the other hand, creates an understanding of texts, persons, events and situations (Park 2011; Biesta 2010). In contrast to the 'functional subtype', this subtype relates to understanding of meaning, and therefore the researcher is required to come as close to the subject of inquiry as possible. The aim of the interpretive process is to assemble disparate pieces of information into a meaningful whole or pattern. In the process of knowing, both the researcher and the knowing persons participate as 'whole living persons with a past and a future, personal likes and dislikes, and enters into the phenomenon to know it on its own terms' (Park 2011:85). In the interaction between the knower and the known during the process of coming to know, changes are produced in both parties (Pawson, 2013, Kompridis, 2006, Biesta, 2010).

Park argues that this transformation through change relates to situations involving humans, as well as texts and other human creations as 'these things come to us as products of previous understanding' that will be 're-described or re-presented' by us as the knowers (Park 2011:85).

Relational knowledge, as the second form, is constituted in situations when the interpretative knowledge is applied to human situations because it provides opportunities for people to create empathic relationships. Thus making it possible for them to know each other in an affective as well as cognitive manner. Park exemplifies the relational knowledge with the distinctive relational meaning when we in daily usage say we 'know' someone; in contrast to the meaning we connect to knowing facts or theories. By highlighting the affectivity in knowing, Park exceeds Habermas' formulation of rationality. Like Kompridis (2006), he argues that the Habermasian concept of rationality is too tied to the cognitive prejudices of Kantian philosophy of reason as being empty of emotive content. Park therefore purport that Habermas' notion of reality 'stops short of fully embracing as rational our knowledge of

others as human beings which is weighted with affective content and process' (Park, 2008):84.

Relying on insights from feminist scholarship (Braaten, 1995) and influence from traditional Chinese language (Hansen, 1993, Hall, 1982) pointing to the power of language in creating a reciprocal relationship between the speaker and the listener, Park states that knowing relationally enriches us and becomes a part that makes us more whole. The importance of relational knowledge for PAR, therefore, is due to the reciprocal action of relational knowledge growing out of communal life (Park 2011).

Reflective knowledge as the third type of knowledge in the broadened epistemology derives from a critical theory tradition. This type of knowledge is social and dialogic, and based on conscious individual and group reflections by the actors involved. Consequently, Park argues, to be meaningful for human knowledge, the aim of reflective knowledge is not only to understand the world; the aim is also to act upon the knowledge to change the world. Reflective knowledge encompasses the morality of daily living and connects to the concept of Paulo Freire's pedagogy of liberation of the oppressed (Freire and Nordland, 1999). Thus, the reflective knowledge is claimed to create collective autonomy and responsibility (Park 2011). As such, this knowledge must be normative and action oriented in addition to being explanatory (op cit: 89).

The action element is integrated in reflective knowledge in two senses. Firstly, as a kind of experiential learning in the sense that people with problems first find out what the problem is and thereafter act on the insight (Dewey, 1969b, Biesta, 2010). Secondly, action also relates to the process of critical engagement and social action and the way acting can produce a kind of learning with 'mind/heart' of how the world works, of what we can do and who we are. According to Park (2011), this is how we become aware and emancipated (op cit: 89). In this aspect I find that Park's notion connects to the romantic idea of critical theory as world disclosing as proposed by Kompridis (2006).

However, when arguing for transformational action research and practice development, holding human flourishing as both end and means of the process, in order to discover new ideas and possibilities in challenging environments, McCormack and colleagues argue that creative arts and ancient traditions should be blended with the assumptions embedded in critical thinking (McCormack and Dewing, 2012, McCormack et al., 2013).

### A critical creativity worldview; blending being critical with being creative.

Anchored within person-centred, transformational practice development (PD) and research in health/social care and education, Titchen and McCormack have developed a paradigmatic synthesis or worldview they call 'critical creativity'. Within this perspective and for the purpose of human flourishing for all involved, the assumptions from critical thinking congruent with the participatory worldview and approaches of critical action research, are 'blended and balanced with and attuned to, creative and ancient traditions' (Titchen and McCormack, 2010):532).

The authors acknowledge the duality of research objectives in critical or emancipatory action research being, as put by Kemmis (Kemmis, 2011), to improving the outcomes and the self-understandings of practitioners and at the same time also assisting them in critiquing their work and workplace settings. However, Titchen and McCormack argue that this is insufficient in their pursuit of transformational practice development and research (McCormack and Dewing, 2012). As they see it, the ultimate purpose is human flourishing in terms of growing, developing and thriving for all involved in practice development and change processes; that is for the participating practitioners and the facilitators/ researchers during the course of change experiences, as well as for those who are intended to benefit from the work.

As within a participatory worldview, Titchen and McCormack contend that facilitation strategies need to engage practitioners in a process of 'cognitive' critique to de-construct for instance politically, socially, historically and culturally embedded situations, contexts or dilemmas. Practitioners should also be engaged in a reflective re-construction process to develop new understandings. In addition, as within PAR (Park, 2011, Gaventa and Cornwall, 2011, Lincoln, 2011), feelings and actions are recognised as being of similar importance as cognition and rationality in the knowledge creation process.

However, in order to achieve the aim within the 'critical creativity' paradigm of human flourishing that is visible to others, a kind of creativity should be included in the reflective knowledge construction process. According to the authors 'being creative in the context of critical creativity' requires creative imagination and creative expressions being utilised in the de-construction and re-construction process to make space for the presence of multiple intelligences and embodied, tacit knowledge. Consequently, practice developers and /or researchers should aim for facilitation strategies that enable the blending of being critical with being creative (Titchen and McCormack, 2010):532). The key idea is that when 'being

critical' is blended with 'being creative', this will potentially increase our own and others' transformation and flourishing by creating cognitive and metaphorical spaces to explore possible actions and strategies for how to realise these.

'Thus critical creativity is a way of being, knowing, doing and becoming that brings together our critical and creative selves as we seek to understand and facilitate the transformation of practice and, simultaneously, create new knowledge about that transformation' (McCormack and Dewing, 2012):7.

Despite using different words and coming from 'art and ancient traditions' (Titchen and McCormack 2010:532), I find that Titchen and McCormack's approach to transformational practice development and action research correspond well with the claims Kompridis (2006) makes of areas that critical theory must address if upholding its ability to respond to crisis and needs of late modernity. Firstly, in acknowledging that in order to learn from our experiences as participants in an ever shifting modern world with an open-ended horizon of possibilities, it creates spaces and makes room for a notion of reason that extends the Habermasian normative and non-contextual critical emphasis on rules and procedures. In my view, the critical creativity approach offers the spaces Kompridis (2006) contends are necessary to inviting different voices of reason to '...reopen (..) cultural practices that can regenerate hope and confidence in the face of conditions that threaten to make even their regeneration meaningless' (Kompridis 2006:277).

By including a kind of creativity to the reflective knowledge creation process in transformational PD work and action research, Titchen and McCormack create 'cognitive and metaphorical spaces' to explore possible actions and strategies for change. Consequently, this also opens for the voices of reason that Kompridis argues have been 'neglected, devalued and surpressed' (op cit :236) in the dominant rule governed or rule- enabled regime of reason.

As I can see, Titchen and McCormack's 'key idea' of the potential for transformation and human flourishing being increased in spaces that enable blending of 'being critical' with 'being creative' in searching for new ways of acting and thinking, are well suited to offer the 'new tongues' and 'new ears' Kompridis repeatedly discusses in his book related to the question of;

'....how to grasp as learning – which is to say, as an activity of reason – those accomplishments through which we acquire new tongues with which to say what cannot be said and new ears with which to hear what cannot be heard, accomplishments through which we overcome epistemological crises, and partial, one-sided interpretations of ourselves and others and accomplishments through which we

are able to 'go on' learning from our interactions with one another and our interactions with the "world'. If we continue to think that learning processes occur 'only in the light of criticizable validity claims', we will be unable to grasp such accomplishments as an activity of reason' (Op cit: 236 italics in original).

I find the underlying assumptions of both Kompridis (2006) and Titchen & McCormack's critical creativity (McCormack and Titchen, 2006), as well as Park's broadened epistemology (2011), well fitted with the understanding Dewey offers in his theory of knowledge exceeding what he saw as the

'impossible question' of how a 'knower who is purely individual or 'subjective', and whose being is wholly psychical and immaterial ...and a world to be known which is purely universal or 'objective', and whose being is wholly mechanical and physical can ever reach each other' (Dewey, 1969a).

To overcome this impossible mind- world scheme only offering the possibility of either subjectivity or objectivity, Dewey proposed a framework with 'experience' as the key concept in understanding the nature as a 'moving whole of interacting parts' (Dewey 1929: 232). According to Biesta (2010), Dewey called his proposals in the new framework as his Copernican turn; a turn from the mind being the old centre to, instead, regarding the new centre as the 'indefinite interactions' – or what he later called transactions, taking place in nature (Biesta, 2010):106).

The theory of action, frames Dewey's theory of knowing and, when summing up the different underlying elements, Biesta describes it as a 'theory of experimental learning' implying that in order to learn, it is not sufficient to collect information about the world 'out there'. Rather, it is a 'learning process through which individuals acquire a complex and flexible set of predispositions for action' (op cit 107). However, this is not to be understood as a blind trial and error, but what Dewey called 'intelligent action' (1929:132) where it is the combination of reflection and action that leads to knowledge. Thus, knowledge for Dewey is always concerned with the relationship between actions and their consequences.

Biesta (2010) argues that Dewey's major contribution to epistemology was that he engaged in the dualist discussion of subjectivism and objectivism from a different starting point. By this he provided a liberating position of 'doing away with an alleged hierarchy between different knowledges' (op cit 2010:113). By demonstrating that different knowledges are simply the consequences of the different ways we engage in the world, a result of our different actions, Dewey's pragmatic solution justified that:

'different approaches generate *different* outcomes, *different* connections between doing and undergoing, between actions and consequences, so that we always need to judge our knowledge claims pragmatically, that is in the relation to the processes and procedures through which the knowledge has been generated so as not to make any assertions that cannot be warranted on the basis of the particular methods and methodologies used' (Biesta 2010:113 *italics* in original).

Thus, it is emphasised in Dewey's pragmatism, similar to assumptions in complexity theory and realist theory (Pawson, 2013), that research will only be able to provide us with insights into what has been possible in the particular situation and given the particular methods we have used when engaging. Consequently, the Deweyan pragmatism offers a way to exceed the 'unhelpful epistemological dichotomies' that in Biesta's view too long have been crippling discussions of research designs and justifications of knowledge claims (Biesta 2010).

# Extending Park's broadened epistemology for participatory action research to encompass transformational action research

As previously described, Park has suggested a broadened epistemological framework to exceed the conventional western epistemological horizon to better capture the understanding of knowledge and activities of coming to know that we engage in when participating in action research (Park, 2011). Following Park's urge to capture a wider notion of reason and conceptualise the forms of knowledge in terms of the activities we engage in when doing participatory research, I suggest that *embodied knowledge* (McCormack and Dewing, 2012) could be added as a fourth dimension for transformational action research (McCormack and Dewing, 2012). This will also link to Kompridis' notion of 'romantic- expressive understanding of reason' (2006),

Being positioned within the critical creativity worldview and deriving from an eclectic understanding of knowledge, the aim of transformational action research is to use arts and creative expressions to access 'a form of holistic knowledge' (McCormack and Dewing, 2012):6. When elaborating the concept, McCormack and colleagues describe it as an eclectic understanding of knowledge in which empirical knowledge is merged and blended with embodied and artistic knowledge, including emotional and spiritual intelligences (McCormack and Dewing, 2012). This is done, they propose, through 'praxis' understood as mindful action with the moral intent of human flourishing. The praxis is facilitated through 'professional artistry' (Schein, 2010) representing the capacity of being attuned to a situation and able to draw upon different kinds of knowledge, different ways of knowing and intelligences, as well as engaging in cognitive and artistic critique (Titchen and McCormack, 2010, Tichen and Horsfall, 2011).

Methodologically, these assumptions lead to conscious use of nature and natural objects, as well as other artistic methods such as postcards, dance, images and painting etc. to evoke imagination and creative expressions (McCormack and Titchen, 2006, Simons and McCormack, 2007, Titchen et al., 2011), and to stimulate the knowing through the combination of action and reflection (Dewey 1929).

I follow Park's notion of knowing as a way of doing, and as the activities we engage in when doing participative research. When this in turn is used to conceptualize the different knowledge types involved, I find that the representational, relational and reflective knowledge types from Park's framework are covered in what McCormack and colleagues refer to as the 'empirical knowledge'. However, to cover a more complete knowledge based on experience (Dewey) and a more holistic notion of reason exceeding the body- mind dualism (Kompridis), I find it necessary to add the *embodied knowledge* as a fourth component.

# **Knowledge and power**

Rationality plays an active role and dominates as both theme and orientation in participatory research (Reason and Bradbury, 2008). However, to meet the goals of participatory research as described by Park as a social pursuit of human fulfilment, it is necessary to understand rationality in an expanded sense. Consequently, we should not only privilege knowledge inherited from positivistic sources and avoid the power that is embedded and reinforced in the dominant objective knowledge production system (Gaventa and Cornwall, 2011). In order to verbalise the activities that are performed in action research as rational activities, Park proposes that the conceptualisation of the research activities as knowledge types will enable a 'methodological mindfulness' into the effort of participatory research. Because the scope of participatory research 'have roots in the social fabric, consisting of material conditions, human relations and the moral order, any rational endeavour attempting to provide satisfactory solutions must take all these factors into account' (Park 2011:90).

Practicing participatory research therefore means that questions of community relations, as well as moral consciousness and technical considerations related to material conditions, have to be addressed at the same time. As such the comprehensive framework may be supportive, and at the same time also help linking to a more liberated concept of power that encompasses solidarity and moral courage in addition to control (Park 2011).

Because knowledge and power are closely linked, and knowledge in the conventional western epistemology only is conceived in terms of 'representational knowledge', power is likely to

be defined as the 'ability to dominate or benignly control nature and social relations by technical means that derive from this form of knowledge' (op cit:90). This is why Park holds that in order to visualise other forms of power that do not involve control, the epistemological framework for PAR should be broadened to also include 'relational' and 'reflective' knowledge. Whilst representational knowledge provides the cognitive basis for controlling our world, including our social environment, the relational knowledge encompasses the power of solidarity that allows people to feel that they are part of a larger whole connecting them as social beings. The reflective knowledge allows actors to build the normative foundation for value standards and the self- confidence needed to engage in social change activities. Together, Park calls the three forms of power connected to the representational, relational and 'power of confidence' (Op cit: 90).

#### Connecting embodied knowledge to power

What then would be the power of the suggested fourth form of knowledge, the embodied knowledge? In my view, it can be argued that the added component 'being creative' (McCormack and Dewing, 2012), using arts and creative imagination to 'grasp the meaning of the whole', has the power to create the energy as well as the personal thriving and growth which can be seen as a prerequisite alongside the power of competence, connection and confidence to create the ability of finding new ways of changing oppressive and unhealthy, unprofessional environments /practices (McCormack et al., 2013, Kompridis, 2006). Consequently, I will argue that the *power of creativity* should be connected to the proposed embodied knowledge.

By joining Park's orientation of the broadened understanding of rationality encompassing technical, social and moral dimensions of life, and supplied with the embodied dimension informed by critical creativity (McCormack and Titchen, 2006), I have found Park's framework helpful in reminding us to be conscious of all four forms of knowledge when designing and conducting the MEDCED research (see figure 3). As discussed in chapter 2, substantial research within the knowledge translation and knowledge exchange field has shown that neither participating, nor the power of the evidence, is sufficient to transform evidence into good practice. Integrating the dimensions of knowledge as suggested by Park (2008) and McCormack & Titchen (2006) may help us to understand the dimensions of the knowledge utilization process that is dependant not only on the control aspect of knowledge, but also the power aspects encompassing creativity, solidarity and moral control (Figure 3).

Figure 3 conceptualizing transformational Action Research activities

Knowledge types conceptualizing				
transformational AR activities	Representational	Relational	Reflective	Embodied
1	Power	Power	Power	Power
Connected dimensions of power	of	of	of	of
1	competence	connection	confidence	creativity
	Control	Solidarity	Moral	Utopian
Embracing the human ability of:			courage	energy

When relating to understanding how the decision making model can be turned into action in our participating nursing homes, as summarised by Kitson, the knowledge status within the implementation science is that getting evidence into practice is:

'...difficult, context sensitive, and dependent upon a number of relational and personal dynamics and requires clear leadership at several levels of the organization' (Kitson, 2011):79.

Hence, in order to understand more of what works for whom in what circumstances, it is necessary to also seek knowledge of the relational, reflective and embodied type.

# Choice of methodology and methods in the MEDCED project

Because we live in a time when the health politicians rely heavily on the evidence-based and experimental knowledge, and both human and financial resources to provide for older people's care are scarce, we have chosen a cluster-RCT design because we believe that the representational knowledge gained from the trial study will be essential to give power to potentially positive findings from the MEDCED study. Should our hypotheses of this cost-effective educational intervention resulting in reduced use of restraint and psychotropic drugs and reduced stress in care staff be verified, we anticipate that most Norwegian nursing homes would have to change their policy and resource allocations in order to turn these findings into common action. As shown by Park (2011), for this purpose, the functional ability of the representational knowledge can be useful. On the other hand, our intervention takes place in a social reality where people work and cooperate, and as Pawson states in his evaluation manifesto: '...social science, pure and applied, is better served falling between stools' (Pawson, 2013):191.

In the MEDCED study, the 'effect' that is measured statistically in the trial is depending on individual staff members' engagement and learning capacity, as well as the teams' ability to turn the new learning into concerted actions towards the persons living with dementia in their wards. This is also the case for contextual factors at the organisational level, constituting the nursing homes' capacity to support its members in applying the decision-making model in daily practice at work. The statistical results of the intervention effect (falsification or verification) can therefore only partly tell the 'truth' of whether the educational material and methods will give the expected effect, and whether the staffs' experience that the intervention increased their person-centred and confidence building skills.

As the success or failure of this education intervention is also influenced by a series of contextual and facilitation mechanisms and elements (Kitson, 2011, Pentland et al., 2011) we aim for a fuller understanding of how the contextual and facilitative elements influence the individual staff members and teams' capacity to apply confidence building measures to avoid use of restraint and psychotropic drugs. To evaluate and understand these complexities, complementary and supplementary knowledge is warranted (Rycroft-Malone et al., 2012, Pawson, 2013).

This should be studied from a variety of perspectives, with different lenses (Guba and Lincoln, 2008, Reason and Bradbury, 2011, Sandelowski, 2014, Bonell et al., 2012, Bonell et al., 2013) and include both the representational, reflective and relational dimensions of knowledge (Park, 2011), as well as the embodied and artistic (McCormack & Titchen 2006). Thus, the choice of mixing cluster- RCT, PAR and Ethnographic field studies in our intervention while being theoretically informed by PARIHS to discriminate between the factors that must remain fixed in the standardized intervention, and the elements that need to be flexible for adaption to the nursing homes' various and fluctuating contextual circumstances.

As proposed by Johnson & Gray mixed method research can be defined as a type of research where an individual or a team of researchers combine elements of qualitative (QL) and quantitative (QN) research approaches (Johnson and Gray, 2010), for instance by using QL and QN viewpoints, data collection, analysis, and inference techniques 'for the broad purposes of breadth and depth of understanding and corroboration' (Johnson et al., 2007):123).

In the MEDCED study, the research strategies sit within the philosophies of the participatory (Reason and Bradbury, 2011) and the critical creativity worldview (McCormack and Titchen, 2006, Titchen and McCormack, 2010), and the study is designed as sequential multistrand mixed- method research (Teddlie and Tashakkori, 2006). In the multi strands matrix in figure 4, I have depicted the number of strands or phases by which the MEDCED study is organized, as well as when and how the methods are mixed within the research process. In the matrix I have used blue colour to illustrate the strands predominantly related to positivist tradition and red for the phases influenced by constructivist and critical creativity paradigms.

Sequential Mixed Method Multistrand Design Pre-intervention Per- intervention Post-intervention QUAN QUAL QUAL QUAN QUAL QUAN PAR-PAR -RCT-Reflecti analyse 7 & 14 Deliver PAR-RCTon & comonths acc. to action recruiti notes construct followprotohypoth knowcol up eses random Superledge izing & vision base-Field on line request studies Meta-Inference & knowledge creation tem@hib.no Teddlie & Tashakkori 2006

Figure 4 The MEDCED sequential multi strand mixed-method model

The PAR work with the facilitators is my main responsibility connected to the PhD, and I will primarily focus on this work for the remaining part of the thesis.

# What is action research and why did I chose this methodological approach?

In the foreword to the Handbook of AR, Reason & Bradbury use the term 'action research' to describe a range of different approaches to inquiry sharing the common features of being participative, grounded in experience and action oriented. The historical roots date back to pioneers like Kurt Lewin and John Dewey from the 1940s and onwards, and their

development works on social action and research confronting the dominant positivist worldview and legitimising the value of reflective action combined with simultaneous theory generating and testing (McCormack and Dewing, 2012).

According to Reason & Bradbury (2011), action research represents for them a commitment of fully integrating knowledge and action inquiry as a practice of living (pxxiv). However, due to the variety of research approaches, they argue that it is difficult to define action research. Rather it is best understood as 'a way of being and doing in the world, being informed by ideas and formal practices, but always free to respond creatively to the requirement of context' (p.xxvii).

McCormack & Dewing (2012) suggest that AR research can be seen to be located in four different paradigms;

- 1. the *technical* AR influenced by the empirico- analytical paradigm, and characterised by the researcher/facilitator holding the power and expertise to decide the aims and measurements of the study
- 2. the *practical* approach located in an interpretive paradigm, emphasizing 'meaning making' and developing a shared understanding as the basis for action
- 3. the *emancipatory* AR positioned within a critical paradigm influenced by philosophers/theorists like Jürgen Habermas, Paulo Freire and Brian Fay (cited in (McCormack and Dewing, 2012). As located in the critical paradigm, emancipatory action research aims to empower people through enlightenment to understand and act to change social and cultural structures if they find them to be oppressive or limiting their emancipatory potentials as human beings in community practices.
- 4. the *transformational* AR situated within the paradigmatic synthesis of Critical Creativity (Titchen and McCormack, 2010) promoting transformation in terms of human flourishing as both end and means of research for all participants involved in the research process. Transformational AR propose an eclectic understanding of knowledge as a form of holistic knowledge in which empirical knowledge is merged and blended with embodied and artistic knowledge, including emotional and spiritual intelligences (McCormack and Dewing, 2012).

Despite that all four paradigms are rooted in the critical theory, in my view, it follows from Kompridis' (2006) arguments for a richer and more time- responsive critical theory that the

full potential of a 'change- enabling disclosure of possibility and the enlargement of meaning' will only be possible to realise within transformational AR.

As described above, due to the different approaches it is difficult to capture all dimensions in a definition, and therefore Reason and Bradbury (2011) only offer what they introduce as a 'working definition' stating that:

"...action research is a participatory, democratic process concerned with developing practical knowledge in the pursuit of worthwhile human purposes, grounded in a participatory worldview which we believe is emerging at this historical moment. It seeks to bring together action and reflection, theory and practice, in participation with others, in the pursuit of practical solutions to issues of pressing concerns to people, and more generally the flourishing of individual persons and their communities' (Op.cit:1)

Based on longstanding experience from teaching and practice development work in nursing and health services, and politics, I am attracted to this broad approach to research for several reasons. Firstly, because I strongly believe that multiple perspectives and polyvocality (Lincoln and Denzin, 1994) increase the quality of reflections and the potential for 'fuller truth' of the realities of peoples' lives. Consequently, this may extend the potential for sustainable and context-based change in a worthwhile direction for the people involved. Secondly, because this approach allows for activist approaches within the principles of research integrity (2nd World Conference on Research Integrity, 2010) and reflexivity based on the aims, values and methodology involved (Finlay, 2002, Bonell et al., 2013, Tashakkori and Teddlie, 2010) Biesta 2010).

Related to my situation, engaging in research aiming for better and more justified working and living conditions for the care staff and the persons living with dementia in NHs is regarded and understood as a driving force that needs to be acknowledged and conscious, rather than a bias that has to be subdued. Lastly, and not least, the participatory action approach is chosen because of the flexibility to respond creatively to the contextual requirements by a systematic cycling between actions and reflections during the course of a research project. Within the rapid changing health and nursing practice I find are constantly exposed to ideological, economic and professionally induced 'reforms', this flexibility is ethically, methodologically and economically necessary.

# **Engaging with Participatory Action Research**

Reason & Bradbury (2008) describe three broad pathways in the variety of approaches that constitute what they call the family of action research. These can be identified in terms of the

concepts of 'first, second and third-person research/ practice'. While not always neither possible nor necessary, they argue that the most convincing and enduring kind of action research includes all three strategies, encompassing;

- I. skills and methods of 'first- person action research/ practice' such as the ability to nurture an inquiring approach to researchers' own lives, act 'with awareness, choose carefully and assess effects in the outside world while acting'.
- II. abilities in 'second- person action research/ practice' to engage with others face- to face in inquiry of mutual concerns. Typically for second- person inquiry, is to start with interpersonal dialogue to, for example, improve our personal and professional practice both individually and separately, and thereafter to include 'the development of communities of inquiry and learning organisations'.
- III. third- person research/ practice aiming to extend the relatively small- projects of first-and second-person inquiry also encompassing 'political events' (Toulmin et al., 1996). Aiming for wider scale inquiry, third- person inquiry can involve people, though not in face- to face relationships, but by 'writing and other reporting of the process and outcomes of inquiries' (Op cit, p.xxvii).

#### Why choose PAR when engaging with the facilitators in the MEDCED project?

In critiquing objectivity, scholars within participatory action research (PAR) (Gaventa and Cornwall, 2011, Maguire, 2011) emphasize the need to listen to other versions and voices in the pursuit of 'truths' that are co-created when people come together and share experiences in dynamic processes of action, reflection and investigation. I have chosen the PAR design because of the approach of partnering the facilitators and me in a collaborative, cyclical, reflective inquiry to improve work practices through facilitation, whilst at the same time making it possible to understand factors influencing the effect of the education intervention as a part of the research process (Leykum et al., 2009). In addition to being a promising way to address the identified gap of the interaction and interrelation between the different elements in the PARIHS framework (Kitson et al., 2008), and in particular the relative influence between the contextual and facilitation elements in Norwegian nursing homes (Pentland et al., 2011), the PAR approach also allows for human flourishing in terms of thriving and transformation for the facilitators while contributing through the intervention to change nursing home practices in a more person centred way (McCormack and Dewing, 2012).

As this approach also allows for co-authoring reports and articles to present the research findings I find it particularly relevant for our research project. This is a skill that the participant researchers wanted to enhance due to new roles and expectations following the national strategy for the Centres for Development of Institutional and Homebased Care (Helsedirektoratet, 2010).

In arguing for the powerful effects of action research work done by individuals and committed groups, Reason & Bradbury end their introduction to the Handbook of Action Research by inviting us readers to explore participatory inquiry from the perspective of our first- person research and practice by attending to what draws our attention, excites us and meets our development needs; our second- person research and practice, focusing on what will work for and liberate our co-researchers and others with whom we work; attending always to the wider third- person cultural, intellectual and political concerns which frame our work and which call for attention (Reason and Bradbury, 2011)p. xxviii. In the following, I will accept their invitation and use the first-, second- and third-person structure to describe the research inquiry and methods I have engaged in during my PhD project.

# First person account; why did I engage in research related to the lives of persons working and living with dementia in Nursing Homes?

In my case, this means being theoretically informed by PARIHS when engaging with the facilitators in PAR aiming to understand the role and influence of external facilitation when implementing a standardized intervention that is anticipated to reduce use of restraint, agitation and psychotropic drugs in Norwegian nursing homes residents.

As the primary rule in action research (Reason and Bradbury, 2011), as in qualitative research in general (Finlay, 2002, Finlay, 2004, Finlay, 2013), is to be aware and conscious of the choices made and their consequences I will relate the following reflection to the elements that 'drew my attention, excited me, triggered my development needs' (Reason and Bradbury, 2011) and prompted the MEDCED –research project.

Prior to the project, I had been a nurse educator for many years and had recently been heading a four year continuing education and community health development programme in collaboration with political and administrative leaders in four municipalities in Norway. A total of 34 leaders and 83 health care staff had participated in a degree CPE tailored programme combining lectures at the University College with monthly three hour coaching sessions with care staff at their workplaces. The programme was financed by the Norwegian

Health Directory, and externally evaluated by ethnographers during the last two years (Vike et al., 2009). In addition, a validated instrument for measuring satisfaction and self- assessed influence on professional development and care provision (Bjørk et al., 2007, Tørstad and Bjørk, 2007, Bjørk et al., 2006) had been used at baseline, and after one and a half, three and six years (Mekki and Tollefsen, 2008). All results concluded greatly in favour of continuation, and this collaborative way of doing practice development and quality improvement in the municipal sector were found to be promising and viable (Glosvik and Mekki, 2013). Despite this, and a range of concrete 'proofs', such as; established day-care centre for persons living with dementia, music therapy sessions, re-structuring the service for acute and palliative care, and results from questionnaire showing that nine out of ten claimed that participating in the programme and being offered monthly coaching related to challenges at work had increased their intention to stay; when the money from the Health Directorate stopped, none of the municipalities allocated money to continue the monthly coaching all parties agreed was necessary to continue the process towards better workplaces and health service for the inhabitants in the municipalities. When I approached the politicians asking why, they all of course pointed to scarcity of resources and when challenged further to prioritize based on the favourable results, some of them answered:

'... well yes, we really appreciate the positive results for the care staff, and it is all very well that the care staff think they are providing better health care to the patients when offered coaching. But we don't really know that, do we? You have not evaluated the results from the patients' perspective, and we would need more solid proof that this actually is converted into better patient results to be convinced to, for instance, reduce the primary school budget to favour the health sector. But of course, if the Government will provide fresh money, the situation would of course be different.'

I was really frustrated by this response because I knew that 'solid proof' for them meant numbers and simple graphs showing the effect in terms of having – or not – effect; the same way they use for instance measures of literacy and mathematics to argue for re-allocation of funding between municipal schools. Given the very challenging and increasing complexity that staff in municipal health needs to handle, and in contrast to school teachers having to do so on a 24/7 basis with no scheduled time where all staff could meet and discuss, it was incredible that the politicians still could regard professional coaching related to challenging care situations once a month as a luxury they could not afford.

At the same time I had experienced how the different care staffs had flourished, and during the three years of coaching sessions heard numerous examples of how they had been inspired and, through increased knowledge, found the courage to instigate better and more person centred care for the patients on the individual, organisational, and for some also at the political level. But how could this rich and multifaceted experience be turned into convincing numbers? When I read John Rowan's remark in the introduction to Human Inquiry from 1981, I immediately identified with the 'thousands of researchers' that had become disappointed and cynical at the prospect of having to divert a rich and multifaceted real world experience into 'manipulating 'variables', counting 'behaviours', observing 'responses', and all the rest of the ways in which people are falsified and fragmented' (Reason and Rowan, 1981): xxiii.

Still, as he and others have stated, it does not have to be like that. For me I was lucky to meet a nurse (I.Testad) who shared the same passion as me; that in a rich country like Norway, monthly coaching in nursing homes was the minimum of what should be expected. She was working in a Development Centre for Institutional and Homebased Care recently connected to our centre, and she had just finished her PhD looking into the effect of education and coaching for care staff in nursing homes. But unlike me, she had done so within a randomized trial approach and used patient outcomes to test statistically whether an education intervention had effect or not. As outlined in chapter 3 she was able to 'prove' effect in terms of significant reduction in agitation and use of restraint. In other words, she was able to answer what the politicians had wanted from me. I found it attractive that her results could be turned into easily conveyable graphs that literally showed the 'solid proof' in terms of reduction for the intervention group compared with the control group receiving no education and coaching.

However, she had also been responsible for the coaching in the nursing homes and had experienced the multifaceted and diverse number of influencing elements that her research was unable to address. Nevertheless, she was convinced by her research that coaching was essential in providing high quality care, and she wanted her education model to be spread to more nursing homes. At the same time we had both been nominated by the Health directorate to participate in a group to create a national strategy for PD in institutional and home-based care in Norway. As described in the introduction chapter (p 18-19), 'Development through Knowledge' is at the core of this strategy, and one of the measurements for evidence based knowledge translation is the collaboration structure between Development Centres of Institutional and Homebased Care in each of 19 counties and the five regional care research centres (Helsedirektoratet, 2010). We were both part of this structure; Testad worked at one of the four development centres connected to my employer, the Centre for Care Research in Western Norway.

The employees at the three other centres in Western Norway also shared the experiences of coaching being promising in meeting the staffs' need for arenas for systematic learning and reflection of professional issues related to their caring practices. They therefore agreed to the proposition of collaborating on a research proposal for a new project that could combine both the need for bigger scale 'proof' by including more NHs into the study, whilst at the same time study the implementation process with a particular focus on promoting and hindering factors in the participating nursing homes.

When reviewing the implementation literature prior to the research application I found that several studies had confirmed that the PARIHS framework had high face validity for nursing practice (Helfrich et al., 2010). The framework's philosophical and epistemological implications were also found to correspond well with our shared experiences from practice development work in Norwegian nursing homes and older people's care in the municipal health sector.

However, the originators of the PARIHS framework also called for further international research and testing in various practice areas (Kitson et al., 2008), and a recent review of research studies connected to PARIHS particularly emphasized the warranty of studies having used PARIHS prospectively to design and evaluate implementation strategies (Helfrich et al., 2010). Finding zero Norwegian studies, and no studies at all from nursing home practice, we decided to use the framework prospectively to frame the MEDCED study.

A requirement from the Norwegian Research Council was that part of the funding should be connected to a PhD and post doctorate funding. During the process of grant application I had been drawn to the idea of entering a student position to meet my development needs of enhancing my research skills and being part of an international professional nursing research environment, while simultaneously establish international connections for our research centre. Thus, I was very happy when I learned that I could be connected to University of Ulster<sup>5</sup> and be supervised by Professor Brendan McCormack, one of the creators of the PARIHS framework. Consequently, I happily embarked on the PhD journey to meet my development needs (Reason and Bradbury, 2008).

In addition to make clear and articulate our choices related to our first person motivation, as proposed by Reason and Bradbury (Reason and Bradbury, 2008):xxvii, we should also make

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<sup>&</sup>lt;sup>5</sup> Moved with Professor Brendan McCormack to Queen Margareth University in 2014

transparent choices of second- person research and practice, and beware of what will work for and liberate our co-researchers and others with whom we work.

Second person's account; aiming for emancipation and transformation for practice developers and assistant professors working with KTE in the municipal health sector.

With the strategy "Development through knowledge" for the newly established Centres for Development of Institutional and Home Care Services (CDIHCS) (Helsedirektoratet, 2010) the role of the practice developers working in these centres had been particularly identified to act in accordance with the objective of the centres, being a 'driving force of expertise and quality in the municipal health sector'. However, while the overall vision was divided into 'goals and initiative objectives' (re chapter one ), the best way of working to meet these objectives was left to the different centres and regions to decide.

Thus, the timing of the MEDCED project was good, and the four PD centres connected to our Care Research Centre in the western region of Norway were formally asked to participate prior to the decision to apply for a research grant. They also took part in discussions related to the application, and their agreements to participate as action researcher to facilitate the MEDCED- intervention was included in the application to the Norwegian Research Council.

By choosing a PAR strategy, we were able to attend to the dual focus of facilitating the intervention whilst at the same time attending in particular to four main elements in the national strategy;

- Firstly, to enhance the participants' knowledge and experience of evidence based strategies for KTE in the nursing home sector.
- Secondly, attend to the main responsibility the CDIHCS had been given of workplace related learning aiming to increase staffs' skills and knowledge of dementia and person centred care within the 'Norwegian Dementia Plan Making the most out of the good days' (Directorate of Health and Care Services, 2013). A central element within this plan is a national learning programme called 'ABC for Dementia Care' wherein person centred care and strategies of finding alternatives to restraint and psychotropic drugs are core elements (Ageing and Health, 2011). The practice developers therefore found it highly relevant to further develop their own skills in these areas by participating in revising the content and methods, and facilitate the education intervention based on research into these topics.

- Thirdly, to experience and co-create knowledge of potentially promising ways to
  respond to the Centres for Care Research's mandate to offer supervision to, and
  collaborate with, the Development Centres in research and development activities to
  contribute to increasing the evidence informed health and care services in the
  municipalities.
- Lastly, to take part in research and being offered to co-author research publications, reports and participate in disseminating the learning through other channels.

Another element in the 'Development through Knowledge' strategy is to strengthen the CDICHS and care research centres' individual and shared links with the regional institutions educating health personnel. In addition, the PDs wanted their teams to be complemented with education- and research skills. We therefore agreed to invite assistant professors from nursing education in the respective regions to team up with the PDs as facilitators and participant researchers.

What then would be the transformative and development possibilities for the assistant professors?

- Firstly, it represented a possibility to address the research and development obligations (R&D) connected to their positions at the University Colleges. Through participation in the MEDCED project, they were offered access to the research field, and to data collected through a multitude of methods. In addition to participating in co—authored core papers, on application to the principle investigator (PI) and given no conflict with themes being addressed in main papers, they were offered to use the data in publication as leading authors and being supervised by the PI. This was important for three of the assistant professors as they wanted to qualify for an associate professor position ('førstelektorer').
- Secondly, it addressed their development needs in several areas, such as; participant
  action research, publications and presentations in English, in depth knowledge of
  research literature of implementation and person centred care in patients living with
  dementia, insight into staffs' and patients' experiences of working and living with
  dementia in nursing homes, challenges as well as possibilities embedded in the Patient
  Rights Act on coercion and restraint.
- Thirdly, it offered a welcomed inspiration of taking part in collaborative research and developing stronger links to both the CDICHS and care research centre, and also with

the participating nursing homes in the regions where nursing students have their placement practices.

Attending to the wider third- person cultural, intellectual and political concerns of enabling more person-centred conditions for people living with dementia in Norwegian nursing homes, their relatives and the staffs that are caring for them.

For the MEDCED project as such, building on the collaboration structure of the CDICHS and care research centres enabled a larger scale implementation than otherwise could have been afforded within the limits of the research grant. Five<sup>6</sup> of the participants are working as PDs with the special mandate to translate and exchange evidence informed knowledge in the municipal sector, and thus their participation in the research project was already paid for. The same applied for the assistant professors who participated as part of their R&D obligations.

In addition, in accordance with the research centre's mandate of supervision and collaboration with development centres, because all centres in our region participated we could use some of the ordinary scheduled meetings to work with research questions related to the MEDCED project and therefore avoid extra travel and accommodation costs.

But more importantly, it not only provided a sustainable structure for a nationwide implementation if the intervention were found successful. Irrespective of being able to falsify or validate the trial hypothesis, the PAR approach also enabled a systematic way to develop and disseminate knowledge to health administrators and politicians of experienced possibilities and limitations of the 'Development through Knowledge' structure related to implementation of evidence informed health and social care in the Norwegian municipalities. Involving the assistant professors also meant that the deeper insight and understanding they achieved through participation in the nursing homes over a period of 15 months of the conditions for people living and working in nursing homes could be transmitted to nursing students, as well as create enabling relations to shorten the gap between the knowledge developed and taught at the universities and the one acted upon – or not- in the nursing homes.

#### Traditional and actionable hypotheses

In the trial part of the study it is hypothesized that successful uptake of the decision-making model would result in outcomes measured pre- and post- intervention in terms of reduced use

<sup>&</sup>lt;sup>6</sup> The university in one of the regions did not have the capacity to participate, instead the participant in this team was an educator from a specialized research and education center of dementia and older people at the university hospital

of restraint and psychotropic drugs in residents living with dementia. Thus, the final confirmation or rejection of the action hypotheses of the PAR study was discussed in relation to the MEDCED outcomes. However, unlike experimental research, if action hypotheses are used in PAR they are tested and refined throughout the course of the study in action research spirals allowing a necessary flexibility to respond to unexpected situational/contextual challenges as the intervention proceeds (Titchen, 2011, McCormack and Dewing, 2012).

According to Titchen, (in press) working with 'chains of causations', described as 'series of action hypotheses' is used to show how various intermediary points have been reached in order to achieve the desired outcomes (op.cit:8). In this study, the 'series of action hypotheses' have been constructed, tested and refined according to the facilitators' experiences and 'theories in use' (Schein, 2010). Within the study's overarching action hypotheses, we have participated in developing actionable hypotheses through reflection and reflexivity to the variety of situational/contextual information the facilitators have gathered when they facilitated the Education intervention in the individual nursing homes.

## In the PAR study we engaged with the following hypotheses:

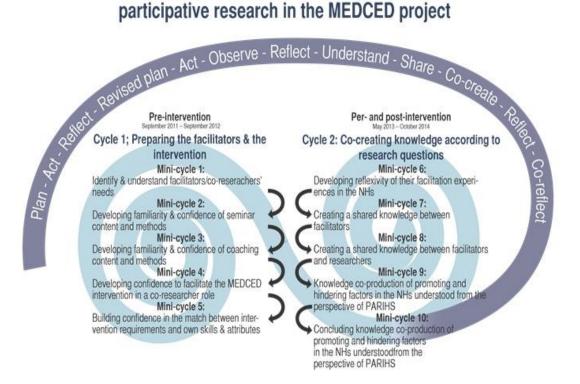
In a situation where external facilitators are implementing a standardized intervention of a decision-making model targeting nursing home staff, and the facilitators are not familiar with the decision- making model, nor the educational content and methods they will be using, successful facilitation of the Educational intervention can be achieved by organising the intervention in two phases and involving the facilitators in a combined strategy of:

- action learning related to development of educational tools and methods, as well as
  facilitated reflection informed by the PARIHS framework concerning their role
  and performance during the intervention process
- participatory action research to critically reflect, debate and construct knowledge
  of how the factors that enable or hinder successful uptake of the decision- making
  model in the nursing homes can be understood from the perspective of PARIHS.

If, and how, the facilitators' 'theories in use' as derived from the theoretical assumptions embedded in the PARIHS framework, have been interpreted and evaluated as part of the analysing process in two main Action Cycles: pre- intervention we used multistage focus group interviews related to the first part of the hypothesis, whilst a creative approach to

critical hermeneutic analyses were used when attending the second hypothesis post-intervention. Overall, we performed ten mini-cycles totalling 14 full day meetings (fig  $5^7$ ).

Research Cycles of preparing and performing facilitation and



Creative Hermeneutic Knowledge Co Production/Cycles-model

In *Action Cycle One*, we started the days with sets of action learning workshops and used a variety of methods when revising and preparing to facilitate the intervention. Four of the workshops were finished with a focus group interview (FG) to reflect collectively on the research question and the first actionable hypothesis. Together the two activities comprised what I have chosen to call mini-cycles one to five.

Action Cycle Two refers to the meetings taking place during and after the education intervention had been delivered. Hence, the mini- cycles six to ten contain only research

<sup>7</sup> Adapted with permission from 'Figure 1.Group collective action' McCormack and Dewey (2012:5).

activities connected to analysing and knowledge co-production between the facilitators, my co-moderators and me.

The CIP-principles of collaboration – inclusion – participation (McCormack et al., 2013) were overarching our working process in both action cycles. However, the worldview and mode of action research differed, as did the AR hypotheses guiding our participatory work. Consequently, I will use the two main cycles as a structure to present both the methods we used related to the aims, the themes we explored, and the reflections and actions we took in the workshops and focus group interviews. However, there were two common features of my work in both Action Cycles. First, the need to stay open and continuously reflect on how I conducted the research and how I managed to balance between a purposeful exploitation versus a necessary reduction of my pre- assumptions of the scrutinised phenomena. Secondly, to simultaneously prepare the research workshops, i.e. the mini-cycles, and undertake preliminary analyses of the verbatim transcripts from the preceding mini – cycles.

# Balancing reduction and reflexivity when engaging in participatory action research; in search for a 'phenomenological attitude'

An important quality when researching phenomena in our lived world is the ability to put our predispositions in brackets and go beyond our normal attitude of taken- for- granted understanding. To this end, and drawing on philosophers like Husserl and Heidegger, and psychological researchers like Wertz, Van Maanen and Dahlberg, Finlay (Finlay, 2008) advises researchers to adopt a phenomenological attitude in terms of :

...the process of retaining an empathetic openness to the world while reflexively identifying and restraining pre- understandings so as to engage phenomena in themselves (Finlay, 2008: 29).

To fully grasp the content of this advice, I had to look deeper into the concepts of openness and reflexivity. Related to openness, Dahlberg and her colleagues had developed the idea in a way that helped me to understand the dimension at stake. They accordingly advise researchers to develop a 'capacity to be surprised and sensitive to the unpredicted and unexpected' (Dahlberg 2008:98). Thus openness, as they unfold it, is;

....the mark of a true willingness to listen, see, and understand. It involves respect, and certain humility towards the phenomenon, as well as sensitivity and flexibility. To be open means to conduct one's research on behalf of the phenomenon. This ... shows how important it is ... not to decide beforehand upon the methods by which the phenomenon should be studied (Dahlberg et al., 2008):98.

Reflexivity, when applied to the research process, is the researchers' constant reflection upon their interpretations of both their experiences and the phenomena being studied. The process can, according to Finlay (2008), be envisioned as a tango of improvised steps in which the researchers 'twist and glide' to balance between a reductive focus of putting their theoretical and empirical pre- understandings in brackets, and a reflexive self-awareness in which the pre- assumptions are used as sources of insight. When doing participatory research and exploring phenomenon co-operatively, I particularly relate to her definition of reflexivity as:

....a thoughtful, self- aware analysis of the intersubjective dynamics between the researcher and the researched. Reflexivity requires critical self-reflection of the ways in which researcher's social background, assumptions, positioning and behaviour impact on the research process (Finlay, 2003):ix.

## How did I work to develop the qualities of my phenomenological attitude?

In my situation with the facilitators, and as described in the 'first person research' paragraph (Chap. 4), I share the common experience of teaching and coaching in nursing homes. I was aware of the need to systematically reflect on how this might impact on the research process and my ability to stay curious and open, and striving, as advised by Van Manen;

... to overcome my own 'subjective or private feelings, preferences, inclinations, or expectations that may seduce or tempt one to come to premature, wishful, or one-sided understandings of an experience and that would prevent one from coming to terms with a phenomenon as it is lived through (van Manen, 2002 cited in Finlay 2008:17).

Thus, along with the reflections with my supervisors, I tried systematically and iteratively to address my self- awareness by writing process diaries and reflective notes after each workshop and focus group session. In addition, my co-moderators and I had immediate meetings before and after each session; in the pre- sessions, we reflected on the themes I had planned to explore based on elements inspired by the PARIHS framework and/ or themes that had emerged in transcripts from previous FGs (1-3), as well as the facilitators' reflection notes (FG 4). In the immediate sessions after the FGs, we reflected on the type of questions that I had used in the inquiry process, our group interaction, and in particular how this was influenced by the way I facilitated the group process: my degree of openness and attention, as well as the way I posed questions and followed – up, or not, on the facilitators' reflections. We tried in these sessions, which usually lasted about an hour, also to reflect and stay reflexive in exploring alternative possibilities and 'what if's'. Sometimes we concluded by noting areas that I needed to follow- up and explore further in the following interview. All our

sessions were audiotaped so that I could return to them as part of the preparation for the next FG.

During the interviews I found it difficult to be reflexive because I was too emerged in the process of understanding the content of, and following-up on the facilitators' reflections, experiences and viewpoints. Therefore, as democracy and equal partnership are regarded as essential for emancipatory practice development (Aasgaard et al., 2012, Borg et al., 2012), I found it necessary to include strategies to systematically reflect on the preconditions to conduct participatory action research within a democratic mode (Aasgaard et al 2012, Borg et al 2012).

Consequently, in addition to the above mentioned strategies to address reflexivity in relation to my own role, several measures were taken to ensure reflexivity of roles and power relations between us as the 'full time' researchers and the facilitators. First, I concluded all the FGs with a session where each of the participants in turn shared their reflexivity and reflections of the participatory inquiry process. These sessions were tape-recorded and transcribed verbatim, and sent to all participating parties for comments after the interview. Second, I asked Eva Marie and Stine not only to observe and monitor the interaction processes in the group, and how these impacted on the quality of democratic dialogues (Kemmis, 2011). They should also pay attention to how I performed my role linked to the risks of being predominantly oriented towards control and strategic action (Aasgaard et al 2012:3). Whether I managed to stay open to the facilitators' stories, and if and how I was able to be attentive to the spoken and unspoken words, and elucidate on the topics at stake. Eva Marie and Stine were also invited to interrupt and pose questions during the interview to follow-up on, or return to areas that I might have overlooked. Third, we explicitly raised the issues of inequality in positions due to knowledge differences in the plenary sessions during the workshops. All facilitators are well qualified nurses, and six out of eight hold masters degrees. Between them, they have substantial experience from teaching and coaching in nursing home settings. Thus, their contextual understanding of the practice field for the MEDCED- intervention exceeds that of us 'main' researchers. On the other hand, we hold more knowledge of the theory, the evidence, the methods, and the content underlying the intervention. I have therefore intentionally stressed from the outset that our mutual competence is greater than the single parts possessed by either of the parties. Accordingly, I have commented every time they used "you" instead of "we" when discussing future plans, questions to be solved etc. Gradually, and particularly after introducing the critical creativity to our working process, this changed to

the facilitators predominantly using 'we' when they referred to our mutual work in Action Cycle Two.

For my personal development towards obtaining a research attitude of openness and attention to the phenomena under scrutiny, Eva Marie<sup>8</sup> and Stine's immediate and thorough feedback on the process and episodes from the FG interview was immensely valuable. I am grateful for the way I experienced this to spur the process of reflecting back on my own conduct and become aware of how my questioning attitude and ability to stay open, emphatic and reflexive impacted on the research we were performing. I also found the feedback on my conduct and sensibility, as well as Eva Marie and Stine's observing 'eyes' and personal reflections of the phenomena we explored, to be particularly helpful in the process of managing to stay reflexive of how my subjectivity and pre- understanding influenced what I heard, felt and saw during the interviews. The way we worked, as well as the results will be described in the following Action Cycle chapters, but I will first outline my choice of analysing strategies for the gathered text data.

## Analytical approach to manage the outcome from multistage focus groups

When searching for appropriate approaches to analyse the text data derived from the FG transcripts, I found that the distinction made by Hsieh & Shannon of conventional, directed and summative approaches to content analysing was helpful to address the pros and cons of analysing techniques for the text data obtained in our research (Hsieh and Shannon, 2005). The main differences among the three distinct approaches, according to the authors, relate to the coding schemes, the origins of codes, as well as the threats to trustworthiness. While coding categories are derived directly from the text in a *conventional* approach, theory or relevant research guides the initial codes in *directed* content analysis. In a *summative* approach, the researcher starts by counting and comparing keywords or content, before analysing the underlying context. To decide what approach that should be used Hsieh & Shannon advice that the purpose of the research should be matched with the state of science in the area of interest.

The benefit of the *conventional approach* is that information is obtained directly from the study participants, without being influenced by preconceived or theoretically influenced categories. Hsieh & Shannon point to two challenges related to conventional approach. First, internal validity in terms of trustworthiness is challenged because this type of analysing fails

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<sup>&</sup>lt;sup>8</sup> Post-doctorates in the MEDCED project, and my co-moderators in FG interviews/CrHeKCoP sessions

to develop a complete understanding of the context, and consequently may fail to identify key categories. However, credibility can be obtained by several measures, such as for instance peer briefing, observation, triangulation, as well as referential adequacy and member checks. The second challenge is that a conventional strategy can be mixed with other qualitative methods such as grounded theory or phenomenology because the initial analytical approach is similar. However, unlike these methods, the conventional approach does not go beyond content analysis to develop a theory or a nuanced understanding of the lived experience. This is because both the sampling and analysing procedures in the conventional strategy make it difficult to deduce theoretical relationships between concepts from findings.

The main strength of a *directed content analysis* is the ability to validate or extend existing theory or research findings. The theoretical assumptions can help to focus the research questions, as well as make it explicit that the researcher is not working from a naïve perspective within the naturalistic paradigm. Relying on previous research findings and theoretical framework, the researcher's position is clarified from the outset (Hsieh & Shannon 2005). In the coding process, existing theory can 'provide predictions about the variables of interest or about the relationships among variables, thus helping to determine the initial coding scheme or relationships between codes' (op cit: 1281).

However, this also poses challenges because the researcher approaches the data with an informed, but also strong bias, and thereby increases the likelihood of finding supportive rather than non-supportive evidence of a theory. A second issue relates to participants getting 'clue to answer in a certain way or agree with the question to please the researchers' (Hsieh & Shannon 2005:1283), when the probing questions are anchored in a theory. Lastly, there is a concern that an overemphasis on the theory can blind the researchers to the contextual elements of the phenomenon. However, these challenges can be attended through a use of audit trail or audit process.

A *summative approach* is useful when the purpose is to explore the use of words or content related to a specific context, rather than to infer meaning. This approach enables interpretation of the context that is associated with how words and phrases are actually used. However, by not paying attention to the broader meanings presented in the text, the findings from this approach are limited. Thus, credibility must be demonstrated in order to obtain trustworthiness.

# Why did I choose conventional and directed analysis in my study?

As shown in appendix 6, I have used both conventional, and directed content analysis (Hsieh and Shannon, 2005) informed by the sub-elements of 'Evidence', 'Facilitation' and 'Context' in the PARIHS framework for immediate coding of verbatim transcripts from the audiotaped FGs and the reflection notes. To ensure reliability and trustworthiness of the data, three researchers<sup>9</sup> have participated in the analysis - process.

The objective in the first FG interview (Appendix 7, mini-cycle 1) was to identify and understand the facilitators' motivation and preparation needs related to undertaking a dual research – and facilitation role in the MEDCED intervention. Thus, for the purpose of obtaining the individual opinions of these particular individuals as a means to tailor the preparation to their requirements, I chose a conventional approach to analyse the information gained in the first interview. However, I used the sub-elements of facilitation from the PARIHS framework to structure and present the findings in the preliminary analysis from this interview.

For the remaining part of the FG interviews in Action Cycle One, however, I used a directed content analysis approach based on the PARIHS framework for several reasons. First, because international research studies have confirmed high face validity, as well as the utility of the PARIHS framework when analysing elements of facilitation as a role and process (Helfrich et al., 2010, Rycroft- Malone, 2010, Jansson et al., 2011). Second, because the purpose, once the preparation and revision of educational material started in the workshops, was to explore the facilitators' readiness to undertake the assigned intervention tasks, as well as to identify whether they felt confident that their skills and attributes matched those defined to the facilitation role in the intervention protocol. Third, to attend to the need to validate the framework in a Norwegian nursing home setting, and also to evaluate the perceived strength and issues when the framework was used prospectively to guide an education intervention.

It could be argued that the risk of bias when using the PARIHS framework in a directed approach to analyse our findings was increased by the fact that not only have the framework guided the variables of interest. PARIHS has also been introduced to the facilitators who used elements from the framework to write reflection notes per- intervention. On the other hand, since no additional categories had been found in recent research using the PARIHS framework to analyse knowledge utilization processes in health services, and one of our

<sup>&</sup>lt;sup>9</sup>I had the main responsibility for performing, transcribing and preliminary analyses, whereas two postdocs acted as my co-moderators and discussion partners in the workshops, FGs and creative sessions.

explicit aims was to benefit future use of the PARIHS framework by adding clarity to the relation between the sub- elements, I found the advantages to be of greater value than the challenges. Particularly when, as described in the previous paragraphs, precautions to achieve neutral and unbiased results were established with all procedures being thoroughly described, and the transcripts and coding documents made available for co-researchers and supervisors to audit. Thus, if bias was detected or important aspects overlooked, I had the possibility to act and correct in the ongoing process of multi- stage focus group interviews.

#### **Ethical considerations**

Ethical approval for the MEDCED study has been obtained from the Norwegian Social Science Data Services (NSD - http://www.nsd.uib.no/), necessary for research with consenting professionals to be done in Norway. In my PhD study, this concerned the facilitators' consent to participate in the study. The overall goal to protecting their confidentially including their autonomy and right to withdraw from the study were covered in a written consent form they signed when they agreed to participate. The same applied to the principles of ethical research conduct and safe storage of the material during the study period. However, as the facilitators should participate in dual roles as action researchers, I chose to include them in decisions of how they wanted their identity to be protected, as well as how they preferred to receive interview transcripts and other data materiel they had co-produced. In the first phase of the study, in Action Cycle One (chap 5), they wanted their identity to be protected. Thus when individual facilitators are referred to in the data presentation from the focus group interviews I have refereed to their statements by using Fa, Fb and so forth. However, when we progressed to the knowledge co-production in Action Cycle Two (chap 6), this was no longer required. From this phase their ownership to the knowledge production became more obvious, and they were now happy to openly share photographs, named excerpts from conference presentations and their individual creative images. From the outset they wanted me to use their work e-mails when sending the transcripts. Whether or not they chose to maculate the transcripts were left to their own decisions, but we all agreed that transcripts should not be shared outside the research team. I could mark their statements in the interview with the first letter in their Christian name. We also agreed that I should keep the audiotapes from the interviews and mark the minutes for the facilitators' statements so that it could be possible for those of us who wanted to return to the audiotape to control that I had correctly cited the statements. However, this should only be allowed for the facilitators, my co- moderators and me.

Formal approval to include patients in the trial study was obtained from the Regional Committee for Medical and Health Research Ethics in Norway. In addition, ethical approval was granted from the School of Nursing Ethics Filter Committee at the University of Ulster 23rd January 2012.

#### Conclusion

This chapter has outlined the worldview, epistemology and methodology underpinning my research. Framed within Dewey's theory of knowing and the relationship between our actions and their consequences, I have argued for choosing a mixed method approach for the whole MEDCED study and a participatory action research approach for the particular work with the facilitators. Inspired and informed by a Critical Creativity worldview (McCormack & Titchen 2006) and Kompridis' (2006) argumentation that critical theory needs to embrace our times calling for its capability to disclose alternative possibilities and reveal new ideas for the future (Kompridis 2006), an additional knowledge component 'embodied knowledge' has been proposed to extend an already broadened epistemological framework for participative action research (Park 2008). In line with the existing framework's power dimensions of 'competence', 'connection' and 'confidence' connected respectively to 'representational, relational and reflective knowledge types; the 'power of creativity' is suggested linked to the embodied knowledge as a new element.

Lastly, I have described the overall approaches to reflection, data analyses, and knowledge production that I have used simultaneously in the ongoing and dynamic action cycles towards a deeper understanding and co- creation of knowledge connected to the research questions and the action hypotheses. While Finlay's (2008) metaphor of tango dancing between bracketing and drawing on my pre- assumptions has inspired my struggle to maintain a purposeful 'phenomenological attitude' when performing the research activities, Hsieh and Shannon's (2005) seminal paper on content analysing has inspired the use of conventional and directed content analysing when mapping and discussing the research findings to the theoretical categories in the PARIHS framework. In the following chapters, I concentrate on describing the activities that took place within the processes of the action cycles. I will also describe continuously the particular analyses and reflections connected to each of the mini-cycles as these in turn influenced the directions, decisions and actions taken in the next mini-cycle during the course of our participatory research process.

# 5. Action Cycle One

#### Introduction

Action Cycle One depicts the pre-intervention spirals of planning, actions and reflections between the facilitators and the fulltime researchers (Figure 5, p 130). The overall aim was to find a meaningful way to understand how, and thereafter prepare for authentic facilitation and participatory action research in a standardized education intervention. We used the PARIHS framework to guide decisions of relevant areas to focus in relation to the role, skills and attributes of facilitation, as well as to structure the preliminary analysis in the ongoing cycles of reflection and action. The whole cycle lasted 12 months, and consisted of a combination of five workshops and three multi- stage focus group interviews between the facilitators and the fulltime researchers. In addition, the facilitation teams took part in information meetings with the NHs, and we communicated per e-mails and telephone.

We used a practical approach to action research which located the interpretive paradigm (McCormack and Dewing, 2012) in our search to understand how the facilitators best could be enabled and empowered to fulfil their role. For this purpose, the first part of the following actionable hypotheses for the PAR study was addressed in the focus-group (FG) sessions.

## **Actionable hypothesis**

In a situation where external facilitators are implementing a standardized intervention of a decision-making model targeting nursing home staff, and the facilitators are not familiar with the decision- making model, nor the educational content and methods they will be using, successful facilitation of the Educational intervention can be achieved by organising the intervention in two phases and involving the facilitators in a combined strategy of:

action learning related to development of educational tools and methods, as well as
facilitated reflection informed by the PARIHS framework concerning their role and
performance during the intervention process

In line with the hypothesis, the purpose was to prepare the facilitators for the appointed role of external facilitators, and for the role of participant action researchers. Hence, when using PARIHS for directed content analysing (Hsieh and Shannon, 2005) of data from the focus group interviews, the 'Evidence' in Action Cycle One refers to the education intervention and the decision- making model. 'Context' represents the workshops with the fulltime researchers and the facilitators, mostly held in hotels with full accommodation. 'Facilitation' relates to the role, purpose, skills and attributes of facilitators.

As researchers, we had different roles in the workshops: the originators of the pilot intervention (IT and AMÅ) introduced the content and methods and produced the written material, while I led the processes when the facilitators participated in revising and ameliorating the educational material based on their expertise as teachers and practice developers. My co-moderators Stine and Eva Marie<sup>10</sup>, and I took part in the action learning experiences and continuously reflected, observed and audiotaped all sessions.

The PARIHS framework was unknown to the facilitators. Hence, during the first workshops, I also used a combination of lectures, provided articles and facilitated discussions to familiarise them with the framework and our reason for choosing PARIHS to guide our intervention.

In the focus groups, however, we undertook a more traditional role of exploring the facilitators' views and experiences related to their role performance. All sessions were audiotaped, and I produced verbatim transcripts and preliminary analysis from the interviews as a starting point for reflections in the following focus group session. Both documents were sent to the facilitators before we met the next time. The preliminary analysis we agreed on, and results from reflections on the processes and actions in the previous mini cycle, spiralled the actions and content for the next full day meeting. This spiral movement of mini-cycles continued until we had reached agreement and preliminary understanding related to the preparation and education material in mini-cycle 5. Details of these elements are presented in figure 6. Thus, in the following texts I will focus on our working processes in the mini-cycles, as well as the findings based on traditional hermeneutic and directed data analyses (Hsieh and Shannon, 2005) of the transcripts from focus group interviews

<sup>10</sup> Post doc researchers in the MEDCED study

Figure 6 Modes of inquiry, themes explored and agreed action in mini-cycles 1 – 10

	Action cycles pre- and per- intervention	Themes explored in Focus group interviews (FG)	Actions taken and agreed during workshops
Facilitating Communicative space	<ul> <li>Mini -cycle 1:</li> <li>a) Identifying &amp; understanding facilitators preparation needs related to the role of facilitating the intervention</li> <li>b) Understanding motivation &amp; needs related to the role as coresearchers</li> <li>Date: 26<sup>th</sup> September 2011</li> </ul>	<ul> <li>a) How to best prepare? Learning methods &amp; time; how, when, where and duration of workshops? Using own examples or standardised 'cases'. Educational material; all text verbatim written?</li> <li>b) What is PAR, and why chosen for this project; 'try &amp; fail' – approach- backdrop to document issues and alterations made. PARIHS framework – brief introduction. WIDER –fidelity issues</li> </ul>	<ul> <li>a) Co-create manuals with assistive power-points (pp), standardised verbatim text on pp- note sheets of all content to be lectured. Use standardised examples. Facilitators role-play &amp; test text and pp's next workshop.</li> <li>b) Create contract regulating roles &amp; rights as co-researchers. TE sends verbatim transcript and tentative analysis before next meetings. Facilitators comments welcomed either per mail or in next workshop</li> </ul>
CIP –principles	Mini -cycle 2: Developing familiarity and confidence in the seminar content and methods & taking part in revising according to own skills and experience  Date: 1- 2 th February 2012	<ul> <li>Principles of workplace learning</li> <li>Implementation research findings</li> <li>Facilitators skills and experiences related to PD in NHs &amp; particularly related to CPE programs of dementia</li> <li>Role play &amp; demonstrating methods</li> </ul>	<ul> <li>Revise acc. to feed-back:         <ul> <li>Fewer pp's, reduce no. of figures &amp; graphs</li> <li>Restructure the presentation using one key-case (Per) as the read thread</li> </ul> </li> <li>Organise in-between meetings in the facilitator teams to rehearse own</li> </ul>
Building safe environment for our participatory research	Mini -cycle 3: Developing familiarity and confidence in the coaching approach and the TFT-model / 7-step model  Date: 3 - 4 <sup>th</sup> February 2012	<ul> <li>Rationale for coaching &amp; experiences from the pilot study</li> <li>Role play coaching sessions using cases from the pilot study:         <ol> <li>IT/ AMÅ demonstrating, facilitators/ researchers acting as staff members</li> <li>Each team role played a session each</li> <li>Collective feed- back &amp; reflections</li> </ol> </li> </ul>	<ul> <li>performance</li> <li>On request; scheduled an extra 2 days kick-off 2 weeks prior to intervention assigned to 'realistic' rehearsal of the whole seminar program. Each team responsible for ½ day each + one coaching session (unknown case &amp; co-researchers role playing staff)</li> </ul>

	Action cycles pre- and per- intervention	Themes explored in Focus group interviews (FG)	Actions taken and agreed during workshops
Facilitating Communicative space	Mini -cycle 4: Developing confidence to facilitating the MEDCED intervention in a coresearcher role informed by PARIHS  Date: 25 <sup>th</sup> April 2012	<ul> <li>Exploring challenges of standardised teaching &amp; coaching acc. to protocol</li> <li>Fidelity issues &amp; practicalities in the dual role of facilitator and co-researcher</li> <li>Theoretical framework informing the study design and conduct; PARIHS and WIDER</li> </ul>	<ul> <li>Co-created template for reflection notes:         <ol> <li>Translated the Context elements of PARIHS to Norwegian NH context</li> <li>Included relevant fidelity registration according to the WIDER recommendations</li> </ol> </li> <li>Feed-back and further revision on second version draft of the seminar structure, content and material.</li> </ul>
CIP –principles	Mini -cycle 5: Building confidence in own skills & attributes matching the role of facilitating the MEDCED intervention  Date: 27 – 28 <sup>th</sup> August 2012	<ul> <li>Exploring readiness and motivation</li> <li>Supervision and reflection to ensuring a common understanding of the facilitation as well as the co-researcher role</li> </ul>	<ul> <li>Trial run; deliver according to final protocol</li> <li>Each team; half seminar day and one coaching session each</li> <li>Feedback on timing&amp; performance</li> <li>Agreed to include a 'low to strong context continuum' assessment line in the template for reflection notes</li> </ul>
Building safe environment for our participatory research	Mini -cycle 6: Developing reflexivity of their facilitation experiences in the NHs  Date: 4 <sup>th</sup> February 2013	<ul> <li>Exchanging experiences and facilitation strategies related to the situations being presented for coaching</li> <li>Whether to continue or not when the NHs did not have more cases involving restraint?</li> <li>Reflecting in FG prompted by questions related to TEM's preliminary analysis from the reflection notes (n=36)</li> </ul>	<ul> <li>Workshop (3 hrs):         <ul> <li>Sharing experiences and coached related to experienced challenges</li> <li>Revised protocol; if no restraint, offer NHs to choose either previous cases or 'Per' from the MEDCED manual.</li> </ul> </li> <li>Focus Group interview (1,5 hr):         <ul> <li>Reflecting on the interaction between them and the nursing home contexts</li> </ul> </li> </ul>

# Engaging with authentic participation for the knowledge construction post-intervention

As the principle of participation is the overarching value of validity in my research, the analyses of FG transcripts from mini-cycles 1-6 indicated that a change was needed in order to ensure authentic participation in the knowledge construction process post-intervention.

The rationality to introduce assumption from the 'Critical creativity' worldview were two-fold; a) through inspiration from transformational research which specifically focus on enabling human flourishing by integrating cognitive and creative critique; b)because of the aim of releasing the facilitators' creativity as a way to access and make space for the holistic and embodied knowledge that the facilitators had acquired during the total of fifteen months they had intervened in the nursing homes (McCormack & Dewing 2012: McCormack & Titchen 2006), was for the remaining part of the process.

Thus, relying on McCormack and Boomers model of Creative Hermeneutic Data Analysing (2011), I developed 'The Creative Hermeneutic Knowledge Co-Production (CrHeKCoP<sup>11</sup>) model to guide the remaining part of the participative knowledge construction related to our second action hypothesis.

	Action cycles post-intervention	Themes explored in CrHeKCoP	Actions taken and agreed during CrHeKCoP sessions
CrHeKCoP	Mini -cycle 7: Creating a shared knowledge based on the individual facilitators' experiences	The research questions /Action hypothesis related to the interaction between the facilitation and context elements	Used the CrHeKCoP (6 hrs):  Agreed to key themes  Created individual and collective images and stories to explain these.
1	Date: 20 <sup>th</sup> June 2013	in the PARIHS framework	<ul> <li>Verbatim transcript of individual stories</li> <li>Verbatim transcript of audiotaped explanations of the collective image</li> </ul>
Facilitating a creative space	Mini -cycle 8: Creating a shared knowledge between facilitators' data construction in cycle 7, and researchers preliminary data analyses  Date: 30 <sup>th</sup> September 2013	<ul> <li>The research questions /Action hypothesis related to the interaction between the facilitation and context elements (PARIHS)</li> <li>Preliminary analyses of reflection notes and FG 4 (TEM)</li> <li>Preliminary analysis from leader</li> </ul>	Used the CrHeKCoP (6 hrs):  > EMT,SØ & TEM individual images, stories and key themes  > Agreed to shared key themes across facilitators and researchers  > Collective image (whole group)  > Verbatim transcript of audiotaped
•		interviews and field – studies (SØ, EMT)	explanations of the collective image

 $<sup>^{\</sup>rm 11}$  See fig 6 The Creative Hermeneutic Knowledge Co-Production model

Opening for a multitude of intelligences and polyvocality	Mini-cycle 9: Knowledge co-production of hindering and promoting implementation factors in the NHs  Date: 20 <sup>th</sup> October 2013	•	The research questions /Action hypothesis related to the interaction between the facilitation and context elements in the PARIHS framework	Profes	al creative knowledge production led by sor Brendan McCormack (6 hrs): Revisited individual and collective stories images, and key themes Used Evoke card to create a collective image and parallel explanation Agreed to key themes from the story Photographed the story and key themes Verbatim transcript of audiotaped explanations of the story and key themes
	Mini-cycle 10: Concluding knowledge co-production of hindering and promoting implementation factors understood from the perspective of PARIHS  Date: 3 <sup>rd</sup> June 2014	•	The research questions /Action hypothesis related to the interaction between the facilitation and context elements in the PARIHS framework Quantitative and field data analyses and findings	cycle 9 conclusumms	the CrHeKCoP, but continued from mini- 9; thus we started with stage three and aded with stage four. This time we co-created aries and texts, and agreed that:  Image from mini-cycle 8 captured our final understanding of dynamism between the PARIHS elements I should write up our concluding understanding of the dynamism between each of the PARIHS elements in my thesis Once thesis accepted, co-author a paper on these findings. TE head the process The Facilitators should be main authors in Norwegian paper discussing their experiences related to the national strategy 'Development trough knowledge'. We should co –present findings at three national conferences autumn 2015.

# Mini-cycle 1; identifying and understanding preparation needs related to fulfil the dual role of facilitating and participating action researchers



In the pilot study on which we built the MEDCED intervention, the nurses (IT and AMÅ) who facilitated the education intervention had chosen the content and created the seven – step coaching model based on their longstanding professional experiences from long term residential and psychiatric health care and education. They had delivered the intervention in a region where their professional credibility was known, and they also held a personal and professional

relationship before they taught and coached in the nursing homes.

The situation for the facilitators in the MEDCED intervention was different. The practice developers had to choose a partner from the university colleges in their regions because we had decided to build on the collaboration structure between the Centres for Care Research, the Development Centres for Institutional and Homebased Care, and the University Colleges. Thus, two of the facilitation teams consisted of partners knowing each other well, while the partners in the other two teams had never before worked together.

All facilitators were skilled practice developers and teachers. They shared a longstanding experience that the quality and engagement in teaching and coaching increased with their degree of skills and experience in the particular of area of knowledge and practice that they should teach or facilitate. Related to the MEDCED intervention, the area of dementia was familiar to at least one of the facilitators in each of the four teams. All teams had clinical and academic knowledge in the main areas that were covered in the intervention. Nonetheless, when the education intervention should be a part of a standardized trial, our first challenge in mini-cycle one related to how it could be possible to engage and draw on the facilitators' individual skills within the fidelity limitations embedded in a standardised education protocol containing content and methods the facilitators did not previously know. The other theme addressed the dual role of participating action researchers; a research approach of which none of the facilitators were familiar.

## Context and themes explored

This first FG took place at the end of a regular meeting between the development centres and the Centre for Care Research Western Norway. The formalities according to roles, rights, economy and reciprocal obligations of research participation were addressed in the regular meeting when the leaders from the participating centres were present. During this discussion, the parties agreed that these issues should be regulated in a formal contract between the administrative leaders, and kept apart from the PAR- process.

IT acted as my co- moderator in this first FG interview because the postdocs were not yet engaged. After a short introduction to the aim of the interview, I held a general introduction to the way of democratic explorative dialogues in FGs and particularly underlined the value of associating and connecting to the other participants' reflections. Thereafter I followed the planned list of themes covering their reflections on education and coaching as means to implement knowledge in NHS, as well as promoting and hindering implementation factors, and their thoughts and feelings connected to undertaking the dual facilitation – and coresearcher role (see further details in appendix 7-8).

### The process

We sat around an oval table in a conference room making it possible for all to see each other and connect during the interview that lasted for 90 minutes. As we knew each other and had been together two days before the interview, we experienced no start-up problems. The facilitators started to reflect on the themes immediately. All facilitators spoke, and they often referred to and built on previous statements, when they narrated their own views. I let the conversation flow, and followed up on statements that I found interesting or necessary to clarify further. Sometimes I returned to a person's statements that I either needed to check if I had understood correctly, or I wanted them to explore further. When I felt that they had answered the theme I had introduced, I asked if anyone had additional comments, or if IT had things she wanted to unravel further. If not, I continued to the next theme on my list. When all points on my list were covered, and I judged that it was time to finish, I said so and simultaneously asked if anyone had additional reflections that they wanted to share. This was not the case, and I thanked them and told that I would send the transcript and preliminary analysis before our next meeting.

#### Transcript and the analysing process

I transcribed the interview verbatim, resulting in 14 text pages. IT's and my questions were marked with italics, and the facilitators statements were marked with the first letter of their

name. I also noted the time when the different statements were recorded in case I needed to go back and re-listen to the audiotape. The transcript was sent within two weeks; I only received thanks and confirmations from the facilitators that they were cited correctly, no requests for clarifications or corrections.

It took me between five and eight minutes to transcribe one minute of audiotaped discussion. Nevertheless, I value the time spent for three reasons; first, it assisted my reflection of my own conduct and possible undue influence. Second, I found that the combination of attentive listening to the spoken words, as well as the sentiments accompanying the statements, prompted thoughts and reflections related to areas that I needed to discuss further with my comoderators and supervisors, and possibly also follow- up in the next interview. For instance, it was first when I listened to the tape that I noticed the way the facilitators built on each other's reflections, and also realised how often we laughed. Finally, the transcription started the analysing process and I constantly noted ideas connected to the audiotaped time in my notebook.

During my first reading of the transcript, I wrote my instant thoughts directly in the manuscript. These were summed up, compared with the immediate reflections I had made after the interview, and expounded in the notebook I kept during the whole period of conducting, transcribing and analysing the focus group interviews. For the second reading I highlighted words and meanings from the text that appeared to capture key elements or meanings related to the themes we had explored. I then sorted corresponding highlighted statements in clusters of 15 subcategories, and thereafter grouped them according to the following four broad categories in a table (Appendix 8).

- 1. Believe in the model and the way the intervention is planned in EI-1 (two subcategories)
- 2. Expectations to themselves; their own role and responsibility (four subcategories)
- 3. Expectations to us 'fulltime researchers'; our roles and responsibilities (one subcategory)
- 4. Content, conditions, objectives, learning abilities and methods for the seminar and coaching (eight sub-categories)

In the next and final step before the facilitators were involved, I identified how the categories and subcategories related to the preparation process of the facilitators could be identified to the PARIHS facilitation sub- elements **of role, purpose, skills and attributes**. When I added

an 'additional category', I found that the facilitation sub-elements could serve as purposeful structure to present the promised preliminary analysis to the facilitators.

Because the transcript and derived categories are written in Norwegian, I have discussed these with my co-moderators, and with the Norwegian supervisor. These documents have only partly been translated to my British professor. However, since all parties who have audited the Norwegian transcripts and coding documents have consented that the preliminary analysis has captured the essence of findings from the first FG, I have chosen to translate only the preliminary analysis resulting from the analysing process for my thesis.

# Tentative analysis of the first focus group interview with the facilitators (FG-1)

The sub-elements of facilitation (F) in the PARIHS framework are used to analyse the text

## Purpose; "challenging, but at the same time very exciting"

It is motivating to participate in the study. Primarily because the purpose is to support the staff to do an even better job when caring for persons living with dementia. Secondly, because this way of doing knowledge translation in practice can be transferred to other practice development processes (skill enhancing processes). Being a co-researcher and participating in knowledge-creation of the factors promoting and hindering the implementing of the "Trust rather than restraint-model" (TFT-model) will increase the facilitators' personal knowledge and skills.

#### Role; teacher or coach?

The facilitators are confident that they will receive the education and coaching needed to fulfil their role, but there is some uncertainty related to the role and the expected degree of time and previous skills that will be needed. Being a team of two is strength, as are the scheduled meetings with the facilitator teams from the other counties. The education material with detailed manuscript and case descriptions, and the offer of 'supervision per telephone on request' during the intervention, creates confidence to undertake the education- and coaching role.

#### Skills and attributes:

The facilitators are uncertain of the type of knowledge and experience they will need to perform the education and coaching of the TFT- model, and if their role primarily is to coach the staff to find their own answers?

## Other themes raised by the facilitators;

Several raised questions related to contextual factors connected to the Educational intervention. Due to the different size of the wards, more than twenty people can be expected at group sessions. The facilitators are concerned with how they can possibly coach so many participants at the same time. During the interview we discussed and decided that the facilitators are willing to double the coaching "burden" in the bigger wards organising their care in '8-+ 8- groups' if needed. This way the facilitators can offer to coach the staff for two hours instead of one, with half the group at a time. This, they argue, is better for the participating staff, and in addition it makes the organising of the coaching sessions easier for the nursing homes because the staffs in the two groups can alternate in caring for 'each other's' residents when they are receiving coaching. The facilitators do not think that the skill mix in the sessions will be a problem because the TFT- model is new for all staff members, whatever their professional knowledge. In addition, the different skills and learning abilities mirror the daily life as it is experienced in the nursing homes. Relating to the recruiting of nursing homes to the study, the facilitators are worried that the costs that the nursing homes must raise for all the staff in the ward to participate for two days will make it difficult to recruit a sufficient number of participants to the study.

The preliminary analysis was sent to the facilitators together with a reminder that the purpose was to discuss, modify and agree to a shared version at the beginning of the next FG. Details of the actions taken and decisions agreed to are described in figure 6.

# Mini-cycle 2; developing familiarity and confidence by revising the seminar content and methods



Mini-cycle 2 and 3 took place during a four day seminar between the eight facilitators, five researchers from the MEDCED team, and the two originators of the pilot study underlying the MEDCED intervention (IT and AMÅ). We met at a nice beach hotel with excellent conference facilities and pleasant surroundings for reflective walks during the breaks. Thus, as organisers we could fully concentrate on the professional issues and objectives during the four days' stay.

## Role- play facilitating the MEDCED-seminar

We decided to pilot test the seminar as authentically as possible, with IT and AMÅ acting as facilitators, and the eight facilitators acting as the nursing home staff. In addition, five

researchers from the MEDCED team were assigned roles as observers; three were responsible for observing the process, the time spent on each theme and method, as well as noting questions and areas that seemed unclear or could be contested. Two of us were specifically focusing on the educational aspects of the oral explanations and the text in the education manuals, as well as the appropriateness of the chosen methods.

Based on the facilitators' feedback from the first mini-cycle, IT had revised the pilot manuals and made the power-points we planned to hand out to the staff during the seminar. Thus, when the seminar was role-played, we got a sample of 50 power-point note sheets that displayed the power- point content and the accompanying standardized text. The facilitators were asked to write comments and questions regarding their role as future facilitators who were going to teach and coach the same way as IT and AMÅ did during the role-play. They were instructed not to ask these questions while IT &AMÅ talked because we wanted to time the exact duration of each session.

The main priority of the first two days was to update the content and the educational strategies for the seminar part of the MEDCED intervention. Initially I thought that it might help the facilitators to focus on the educational aspects if they were instructed to think of themselves as staff members and pose questions according to that role. Their experiences, feelings and questions connected to the facilitation role should be the theme for our focus group reflection after the total seminar content had been role played.

However, this idea was not successful. The facilitators found it difficult to play a role and imagine what a nurse or nurse assistant would have thought and felt, and at the same time attend to their own need to ask questions to clarify their own understanding of the content. We therefore decided to reconsider, and after the first two hours, they were instructed to be 'themselves'; thus acting themselves in the seminar and taking part in the different methods, such as creative thinking, brainstorming, listing their hobbies and preferences etc.

Nonetheless, they were still instructed to try to focus on the content, and how they experienced and understood this. While acknowledging that it would be impossible to totally separate their experiences from the future obligations as facilitators in the NHs, we asked them to try to concentrate on understanding and experiencing how they understood the content and methods, as well as the way they were influenced by them. They were provided with notebooks and asked to note questions, thoughts and ideas to be discussed in the focus groups and at the evaluation sessions at the end of the two day seminar; related to their

facilitation role, the feedback of the methods, and the pedagogical strategies. The change was appreciated and experienced as an acceptable way to engage and combine the two foci during the remaining ten hour seminar sessions.

All the MEDCED researchers wrote observation notes that were made available to all participants on request, and we also used the notes in the ongoing evaluations we held for revision purposes. I organised the first evaluation session after a two hour break at the end of the second seminar day; a break most of us spent on reflective walks at the seaside. We used the same structure in all the evaluation sessions and started with a round around the table with everyone sharing their overall reflections. Thereafter we discussed the structure and the methods, and finished by revising page for page and agreeing, or not, to suggested revisions. The process was easy to lead because I sensed that the group had a strong and united interest to participate in ameliorating a content that they in several ways told IT and AMÅ that they 'believed in', 'really thought would be helpful for the nursing home staffs', and 'that they felt they should manage'. The facilitators also honoured the authentic way IT and AMÅ had performed during the role play.

Still, we experienced some contradictions when the facilitators and researchers agreed that the overall educational value would be increased by reducing some of the content, such as; decrease the number of power-points, remove some of the figures and graphs, and redesign the graphs that several of us misunderstood. As experienced writers and teachers we could understand the difficulties of 'killing one's darlings'. However, when the majority agreed that lesser was better, I referred to the rules of democracy and we then decided by majority of votes. Nevertheless, all parties mostly agreed to the suggested revisions; the most prominent being a restructuring of the content elements by using one key—case as a red thread throughout the whole seminar introduction, as well as in the manuals that were given to the staff. The key- case was based on IT and AMÅs experiences from the pilot study of a difficult case with a successful ending.

# Focus group two; reflections on role and preparation needs to enable the MEDCED seminar facilitation

The second FG was held from 9-10 am on the third day of the workshop. We sat around an oval conference table, and we used an iPad to audiotape the whole session. We began by discussing the preliminary analysis from mini-cycle 1, and my idea was to co-create the final version before we focused on the themes in the second mini-cycle 2. I had connected my computer to the overhead screen and was ready to adjust the preliminary analysed texts

according to feedback. However, all the facilitators agreed that the analysis had captured the reflections of the skills and preparation needs connected to role of facilitating the MEDCED intervention that they had had at that point in time. The facilitators wanted to keep the analysis as proposed, and we proceeded to the interview following the same procedure as in FG 1 (p.141). From this interview and onwards Stine and Eva Marie took part as comoderators.

In the second interview we mainly explored the facilitators' preparation to undertake the role as standardized in the intervention. According to the PARIHS framework, a key role for a facilitator is to assist practitioners to 'make sense of' and apply evidence, as well as participate to affect the context of the implementation. From analysing the concept of facilitation, Harvey et al (2002, p. 580) suggest that 'the purpose of facilitation can vary from providing help and support to achieve a specific goal to enabling individuals and teams to analyse, reflect and change their attitudes, behaviour and ways of working'. As these purposes are not mutually exclusive, and descriptions of applying the concept indicate combined approaches, facilitation may best be presented as a continuum with task oriented and holistic oriented facilitation approaches being the extreme points (Harvey et al., 2002). Facilitation towards the holistic end will increasingly address the whole situation and the whole person, as opposed to 'doing for others' being predominantly the case of facilitation towards the task oriented end. The underlying purpose, the stakeholders, and the nature of evidence influence how the role is being operationalised in particular contexts (Rycroft-Malone and Bucknall, 2010):119.

In the MEDCED intervention, the overall aim was to reduce use of restraint and psychotropic drugs. Hence, the role of facilitation was to provide an arena to disseminate knowledge and educational material, as well as coaching the staff to use the TFT- model in shared decision making to find alternative person centred and confidence building measures when caring for agitated residents living with dementia. Consequently, as facilitation should play a central part in the standardized intervention we sought to ensure a common understanding of its role and purpose in the MEDCED intervention.

#### Analysing and findings from focus group 2

The main focus therefore addressed the facilitators' assumptions of their role and purpose, and lasted for 62 minutes. In the directed analysis of this interview, **Facilitation** and the sub-element of **purpose**, **role**, **skills and attributes** were used. During transcription, I noted

immediate thoughts in my notebook, as well as themes and tasks for follow-up before and during the next workshop. In the course of the first reading, I noted comments directly in the manuscript. For the second reading, I marked statements connected to the sub-elements of role, purpose, skills and attributes. Thirdly, the meaning units were sorted in a table according to the characteristics used in the PARIHS framework to describe the purpose of facilitation as either task or holistic oriented (Appendix 9).

I then sent the transcript, the table with the meaning units (appendix 9) and a brief preliminary analysis stating that the facilitators envisaged their purpose and role to be predominantly towards the 'holistic' and 'enabling others' end of the PARIHS facilitation continuum.

Again the facilitators agreed to my propositions, and before the third FG I sent a reminder that we would revisit the themes from the second interview when reflecting and discussing whether or not the first part of our actionable hypothesis could be confirmed.

#### Role-play facilitating the MEDCED coaching.

After a short break to mark that we, for the remaining days, should focus on the role of coaching, the session started by asking the facilitators to decide roles in a team of nursing home staff members, and thereafter chose a topic related to restraint that IT and AMÅ should coach by using the seven-step TFT- model. Unlike when listening to IT and AMÅ's seminar teaching, the facilitators did not experience the same difficulty between being themselves, who were going to learn, and at the same playing the role as staff members. During the role play, everyone participated enthusiastically. After the coaching IT and AMÅ initiated discussions and questions about pitfalls and potential difficulties to expect, and they shared several examples and challenges from the coaching sessions in the pilot study. Next, the facilitators alternated coaching and playing staff members being coached. Each session lasted for approximately one hour, and then 30-60 minutes were spent discussing and reflecting upon their experiences.

The participating MEDCED researchers were assigned roles as observers, and noted questions and commented on the process as part of the immediate debriefing and evaluation after each team had coached. All the role-played situations were discussed and analysed with a focus on how the facilitators could prepare and qualify for the coaching role in the NHs.

As observers, we were impressed by the enthusiastic and serious way the facilitators engaged. The roles were improvised, and they switched roles in the different plays. Amazingly, this went very well even though they had not previously agreed to the details of the different

patients to play. These patients' situations evolved as the different staff members spoke of their knowledge (or not) of the patient and his or her relatives. It was a challenging way to role play because the different 'staff members' continuously had to adjust or improvise according to new information about both the patient and his or her relatives, and /or to the staff's working conditions. Interestingly, IT and AMÅ found this to be equivalent to some of their experiences from the pilot intervention because the staff often discovered that they had different views, or that they did not know substantial parts of the patient's life history in the same way as did their colleagues.

In the discussions after each role played session, the facilitators referred to their reactions in the first person for example as 'I really felt diminished and overlooked, and I think it was because you all belittled me as the stupid assistant without any education" or "I felt so bad having to say no to the suggestions because, as a Head nurse, I knew that we could not afford it even though I thought it was a good idea. I really felt bad about the disappointments and lack of respect that I felt from the group'.

However, they now wanted to go home and work in their respective teams to prepare for the co-counselling and team function. Part of this, they said, concerned being confident in their partner and their team interaction now that they knew how the counselling process was meant to be. Therefore, they asked us to schedule an extra 'kick-off' session in which they could practice and get feedback when they had finished their preparation of teaching the seminar text. They anticipated that this would give them the confidence they needed, and also 'kick-off' inspiration to fuel their facilitation performance in the nursing homes. Consequently, we scheduled a workshop in August, two weeks before the facilitation should start in the NHs. As we could only manage to meet for two full days, we agreed that each facilitation team should be assigned to teach one part of the seminar programme and do one short coaching session, and alternate in giving and receiving feedback.

# Focus group 3 a); reflections on the role and preparation needs to enable the MEDCED coaching

The third focus group was held before lunch; after three and a half long and intensive days of



acting, observing, reflecting, discussing and planning. We had assigned one hour to this session, but finished after 45 minutes because we all felt exhausted and 'a little empty'. Thus, we agreed that it was ok to reflect more openly on the things that came into mind, and then continue the focused reflections planned for FG 3 when we met for the 'kick-off' work-shop in August (six months later).

We followed the same procedure as in previous interviews;

sitting around the conference table, using the iPad to audiotape and me starting by asking for their feelings and thoughts related to undertaking the coaching role in the nursing homes. We were all filled by a multitude of impressions, and experienced that the session evolved as a mix of debriefing of the facilitators' coaching experiences and an evaluation of the coaching model as such.

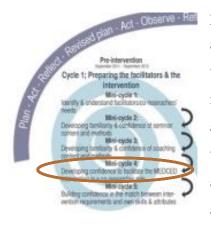
Regarding preparing their own skills and testing their attributes, they found that the coaching exercises were particularly helpful learning practices because of their bodily reactions. Even though they had been aware of playing a role, they were amazed by how authentically they felt the bodily sensations to be, such as; the feelings of being overlooked and not taken seriously because they played nurse assistants or students, or shy staff members that had to be specifically encouraged to talk. This as one of them said, (Fa) *I will certainly remember and have a particular attention to when I am doing the coaching myself.* Another facilitator played a role as a newly educated nurse. During a play one of the 'nurses' acknowledged her and said that the patient and his relatives thought highly of her. The same 'nurse' continued to say that she had observed that the relatives always behaved differently when 'the newly educated nurse' cared for the patient. At the evaluation sessions afterwards the 'newly educated nurse' said that she 'curiously felt happy inside when this was said in the group' even though, as she said, 'I knew very well that this was a role play' (Fe).

Following examples like these, there was a general agreement in the evaluation session that the chosen method of first experiencing the bodily reactions of being coached, and thereafter coach and receive thorough feedback on their performance, as well as being suggested possible alternative choices, was a successful way of preparing to undertake the coaching role.

The round of coaching sessions also assured them of the appropriateness of the 7- step decision model. Especially, the step underlining that questions related to patient and staff feelings should be addressed before proceeding to the problem solving. Thus, based on their involvement in the coaching, the structure of the 7-step model was valued and believed to be effective in helping the staff to make shared and person –centred decisions of care in agitated residents living with dementia. Consequently we challenged IT's idea to not share the 7-step coaching model with the staff, but rather keeping this as 'the coacher's tool' like she and AMÅ had done in the pilot study. Most of us contested IT's standpoint. As we saw it, the 7step model should be used to structure the presentation of the seminar content. The model should also deliberately be shared and referred to during the coaching because the purpose of the MEDCED intervention was that the staff's change to shared decision making should be sustained after the intervention had finished. Hence, we concluded that I should bring our concerns to the MEDCED research team, and notify the facilitators as soon as the research team had made a final decision. The research team decided that the model should be taught at the seminar and used explicitly during the coaching sessions. We then created an extra booklet for the staffs containing an explanation of the 7-step model and instructions for use, and adjusted the power-points and standardised text manual for the facilitators accordingly.

# Mini-cycle 4; developing confidence to facilitate the MEDCED intervention in a co-researcher role

Two and half months after the last seminar, we met again for a full day workshop with the



purpose of qualifying the trustworthiness of our participatory action research and to ensure that we shared a common understanding of the PARIHS framework. This time we met in a classroom connected to one of the development centres, and mainly focused on the co-researcher role. The template workshop lasted four hours, and in addition, we allocated time at the end to address questions related to the seminar material and teaching.

We paid special attention to the 'Context' element because we had chosen to use the framework prospectively to guide the reflection notes that the facilitators should write

according to their observations and experiences in the nursing homes. Before we met, I had sent PARIHS literature<sup>12</sup> together with a reminder of the aim and reason for the workshop.

After a short welcome and 'where are we now'- round, we followed the procedure described below to co-create a Norwegian template for reflection notes that the facilitators wrote after each seminar- and coaching session; reflecting on how the contextual elements in the nursing homes influenced the education and coaching process. In addition, they documented the 'restraint- situations' that the staff brought to coaching, as well as fidelity issues informed by the WIDER recommendations for reporting of behaviour change interventions (WIDER, 2008). I facilitated the workshop, and Eva Marie and Stine observed and assisted in organising the group work and noted areas that we needed to follow-up in future action cycles.

# Procedure for translating and co-creating a template based on the 'Context' element in PARIHS:

- 1. I began by briefly introducing the history and status of the framework, and referred to calls for further research to clarify the interrelation and interaction between the elements E+C+F in recent reviews (Helfrich et al., 2010, Pentland et al., 2011).
- 2. The facilitators were then placed in groups of three (across the existing teams) and invited to use their knowledge of Norwegian Nursing Homes as well as their teaching experience to discuss, based on the three sub-elements of context in PARIHS, what elements/factors they thought would influence on their performance as facilitators in the seminars and coaching sessions. They were told that the main idea by this approach was to reach a shared understanding of how the sub-elements could be translated to Norwegian, and in particular to a Norwegian nursing home context.
- 3. They engaged immediately in discussions. After approximately 30 minutes, we summarized their work in a plenary session. I made a table with 'evidence', 'culture' and 'leadership' columns and connected the computer to video so that everyone could control and take part in the exact wording and appropriate heading to place their statements.
- 4. There were no disagreements or rejections of the statements presented. The facilitators followed up on each group's presentations and confirmed statements by adding additional examples. My immediate impression was that their interpretations and

<sup>&</sup>lt;sup>12</sup> Rycroft- Malone & Bucknall 2010: chapter 5, Kitson et al 2008, and an extended list of references to the PARIHS core papers

- understanding were in line with the assumptions and discussions of the concept discussed in the PARIHS papers and especially the context article from McCormack et al (2002). However, I said that I would transcribe and discuss the facilitators' interpretations with Prof McCormack, and inform them per e-mail of the result.
- 5. We then continued to discuss how we should create the template and what Norwegian words we should use. We agreed to use the directly translated words in Norwegian for 'culture' and 'leadership', and use 'evaluation' together with an extra word meaning continuous quality improvement work. This because the Norwegian word for 'evaluation' alone, was found to be more limited than the descriptions outlined in PARIHS under 'evaluation'. In addition, the facilitators wanted to include a 'something else' heading at the end of the template.
- 6. We agreed that I should write two templates; one extended for their use only, and one that we should use for research purposes with only the sub-element headings. In the extended version I summed up and wrote the elements that the facilitators had agreed were relevant in a Norwegian nursing home context under the template headings of 'culture' and 'leadership' and 'evaluation/ continuous quality improvement work'. The facilitators wanted to use the explanations as reminders of areas to reflect when they should write their reflection notes according to the contextual sub-elements.
- 7. After the session, I asked my co-moderators and Norwegian supervisor to validate the way I had translated the facilitators' Norwegian version to English. I also mapped the re-translation of the facilitators' statements in a table according to the PARIHS subsub-contextual elements. This done, I sent the translated documents to Prof McCormack. He replied that he was impressed by the facilitators' knowledge and understanding, and he agreed that the facilitators had understood and captured the essence of the PARIHS framework. He also supported the idea of making two versions of the template.
- 8. The two templates along with an e-mail referring Prof McCormack's feed-back were then sent to the facilitators, with a specific request to:
  - a. revise if my summary in the extended template version was in accordance with what they meant, and
  - b. discuss if this way of presenting the sub-elements was appropriate. I also
    explicitly repeated that they should think of the elements as clues and
    directions for their reflections after each seminar and coaching session, and
    not as categories to be answered.

9. I received no objections, and the final versions of both templates (appendices 2-3) were formally agreed to as a part of the 'kick-off session' in mini-cycle 6. At the same time we also agreed to include a continuum at the end of the template where they should indicate with an X on a line ranging from weak to strong (1 – 10) their immediate gut-feeling of the particular nursing home's contextual capacity to put the agreed decisions into use.

# Reflections on the method used in the template session, and my thinking behind this choice

One important issue was that all of us should be present and hear the same discussions in relation to our understanding of the PARIHS concepts. The basic idea was to make our understanding and interpretations transparent. I explained that I saw the activity of creating the common platform as a 'baseline' for our participatory research. This was particularly important as part of their co-researcher role, in contrast to the hitherto workshop activities that had mainly addressed the role of facilitation.

In light of this, I was really pleased with the session. Firstly, because of their engagement in the research part of their role and the consequent attempts to relate and translate the PARIHS concepts. But secondly and most pleasingly, because of the common understanding they expressed of the elements. I had been concerned about how the PARIHS concepts and subelements could be related to a Norwegian setting, because some of the concepts as for instance 'transformational leadership', 'evaluation', and 'evidence' have connotations that can be problematic in some settings. I had also wondered if they could be 'alienating'. However, none of these aspects were challenged by the facilitators. Rather, I found that their understanding based on their experiences as teachers and practice developers, as well as their knowledge of the nursing home context, were translated into the discussions of how and in what way elements in this context would influence the implementation process. And as described in the procedure, I found these to be well in accordance with the assumptions discussed in PARIHS articles; may be due to the 'good construct and face validity' demonstrated in international studies (Rycroft-Malone & Bucknall 2010:109)?

# Mini-cycle 5; building confidence in the match between intervention requirements and own skills & attributes



In August, two weeks before the intervention, we met at a conference hotel for a two-day 'kick-off' workshop and the last FG (3 b) pre- intervention. Again, IT & AMÅ had the overall responsibility to supervise and give feed-back on the facilitators' teaching and coaching performance. Eva Marie, Stine and I shared the observation and documentation tasks. At the end, I led one session where we discussed practicalities and final decisions related to the reflection notes, and a focus

group interview. Unfortunately, one team (Fe and Ff) was prohibited due to birth and illness, but IT & AMÅ luckily agreed to do an extra session with this team. We also agreed to send them the transcripts and notes from the workshop and the FG- interview.

Two months ahead of the meeting, the facilitators had got a proof-reading version of the education material and they had prepared to facilitate the seminar within their own teams. For the kick-off workshop, each team had been assigned to teach a three hour sequence of the seminar (excluding the different group works). The rest of us were assigned roles as nursing home staffs during the play, and we all participated in the feedback to the teams after their performance.

Initially we had planned that a printed version of all the material should be finished when we met for the kick-off workshop. However, this had not been done and it turned out to be lucky. Despite having agreed to a final version in the preceding workshops, we ended up by changing several elements that the facilitators challenged after having read and practiced the education within their teams, such as:

- changed the order of presenting the themes, and linking them more clearly to the keycase of Per throughout the two days
- include an outline, and the specification of the seminar programme during the two days
- deleted six out of a total of 35 power-point slides because; two graphs were found to be ambiguous, three text slides were repetitive, and one diagram was difficult to understand and did not add clarity to the intended message

- modified the seven-step model to clarify the step where the decision to restrain or refrain should be taken
- added time to discuss borderline situations when interpreting the definitions of restraint and 'confidence-building measures' according to the Patients' Rights Act
- included two case examples of illegal use of restraint

In addition the facilitators raised the question of how it could be possible to add a personal touch when delivering the message by keeping the meaning, but without reading the exact words in the manuscript; a method they were afraid could be 'boring'. As observers and audience being taught, we had noted that each team had taken care to thoroughly follow the manuscript. However, the way they had chosen to share the tasks within their teams differed, and also how their personalities were reflected in the way they moved and interacted with us in 'the audience' when they taught. Thus, we said that our impression of the different situations differed. We also found that they had managed to personalise the education themes in a way that we felt was authentic. In addition, each team got thorough feedback on how we had observed and experienced their performances, as well as answers to specific questions posed by them such as; how they had shared the tasks between them, were the sequences and the dialogue with the audience appropriate, and sometimes they also asked for specific advice related to their choice of personal examples and teaching style. After the teaching sessions, all teams role-played a 30 minute session of coaching, and got feedback and examples of alternative approaches and questions from IT & AMÅ.

When all the teams had finished, we agreed to two changes that the facilitators suggested would increase their self-esteem in the education situation. First, that they could use examples from their own practice if these conveyed a similar meaning to the manuscript examples. Second, that they could add their own personal comments to link the passages between the different themes. We also agreed that the team who spoke New-Norwegian should translate the power-points and texts to fit their dialect.

# Focus group 3 b); reflections on process and status of readiness to undertake facilitation in the nursing homes?

At the end of 'kick-off' day one we continued the FG reflections we had started in mini-cycle 3. Following the same procedure as previously, and using a list of themes (appendix 10) I had prepared based on reflections with my co- moderators and supervisors, and the transcripts and preliminary analysis of the activities in the previous mini- cycles, we revisited the action

hypothesis for Action Cycle One and explored whether or not the hypotheses could be confirmed.

The interview lasted for 45 minutes and resulted in 22 pages of transcript that were sent to the facilitators within one week. As previously, I only got thanks and confirmations, no clarifications or requests for changes.

# **Analysing and findings from Action Cycle One**

#### Introduction

Within a practical mode of action, we aimed in the pre-intervention phase to prepare the facilitators for the appointed role as external facilitators, as well as for the role of participatory action researchers. The actionable hypothesis (p 165) guiding the preparations suggested that successful facilitation of a standardized education intervention, with content and methods unfamiliar to the facilitators, can be achieved if the facilitators are involved in action learning pre-intervention to revise and role-play the education content and methods. Another condition assumed in the hypothesis was that the facilitators took part as co-researchers in multi- stage focus group reflections informed by the PARIHS framework concerning their role and performance during the preparation process.

As previously described, I have used the elements in the PARIHS framework to predict the variables of interest, as well as the relationship between them. The framework elements also guided the presentation and discussions from the focus group findings. In this first Action Cycle, 'Evidence' refers to the education intervention and the decision making model, whilst 'Context' represents the mini-cycles 1-5. 'Facilitation' relates to the preparation process for the facilitators.

## The analysing process

Using the same directed analysing approach as previously described, I organised the first identification of meaning text units into categories within the elements 'evidence' and 'context' and the sub- elements of facilitation 'purpose', 'role', 'skills & attributes'. Within the meaning texts units, factors that could illustrate the findings were developed (appendix11). Finally, these factors were organised according to the PARIHS sub-elements and presented in a table summarising the overall findings related to Action Cycle One (Table 4).

## Identification of the categories to the elements of PARIHS

Table 4 presents the identified categories in relation to the three elements in the PARIHS framework. For the purpose of the pre- intervention analysis it was not relevant to extend the identification using the continuum from weak to strong. Overall, I found it helpful to use the framework in the analysis, although some overlaps occurred for instance between the sub-elements 'role' and 'skills and attributes'. However, I regarded the discrimination of the sub-elements to be of less significance in this stage of the study. On the contrary, it was more important to identify additional categories. The developed factors from the interview findings are presented in *italics* related to each sub-element of PARIHS both in table 5 and in the following text.

## Category one; evidence

Participating in revising and ameliorating the education material and methods had made the facilitators *believe in the model* due to the relevance of content being taught at the seminars, the requirement that all staff and their leaders should attend the seminars together, as well as the follow- up coaching during 6 months in the nursing homes.

Fc: '...it is important themes being addressed, and I believe the wards we are going to will profit from this (...) so it's the whole package including the coaching that I believe will appeal to the practice field'.

Table 4 Findings Action Cycle One mapped to the PARIHS elements and sub- elements

	FROM PARIHS FRAMEWORK				
ELEMENT	SUB-ELEMENT	FACTORS DERIVED FROM IDENTIFIED MEANING UNITS IN FG-3			
Evidence	Research/ clinical experience/Pt's experience/ local data/information	Believe in the model			
Context	Culture/leadership/ evaluation	<ul> <li>Safe and accepting environment</li> <li>Solidarity – being a "we" achieved through acceptance and of being together</li> </ul>			
Facilitation	Purpose	<ul> <li>The purpose of our role; enabling by posing questions</li> <li>Coach to use a tool, not oracles presenting the answers</li> </ul>			
	Role	<ul> <li>Appreciate the approach to learning</li> <li>Had anticipated more introduction to the theoretical underpinnings of the model</li> <li>Ownership achieved by participating revising the education material and methods – a way to get it under the skin</li> <li>Thorough feed-back on text necessary to ensure fidelity to the trial protocol</li> <li>Exciting to participate acting in a research process</li> </ul>			
	Skills and attributes	<ul> <li>Individual learning necessary to be confident to transfer to others</li> <li>Safe being in a complementary team</li> <li>Flexibility and courage to meet the unexpected</li> <li>The skills needed for coaching</li> </ul>			

#### Category two; context

All facilitators appreciated the *safe and accepting environment* in the workshops, as well as the underlying feeling of all parties participating towards a common goal and wishing each other well. The way they were asked for feed-back and experienced that this resulted in revisions that ameliorated the intervention further spurred the facilitators' engagement, and created a feeling of *solidarity – being a 'we' through acceptance and being together*.

Fd: 'you (*researchers*) have conveyed a strong sense of acceptance of who we are, and that we are a competent team. Hence, I have got the feeling of 'wow', somebody believes in me even though I pose a whole lot of stupid questions – at least I think ...(..) so here I think you have succeeded and that has been very important'

In addition, spending a year on the pre- intervention process which was led in a way they experienced as both democratic and inspiring had been important to assure them that they could undertake the facilitation according to the intended role and purpose.

Fc: 'it has been a very good process, where it was not clear from the outset what we should participate in, so these days have been very important to make us safe. That we have had these role-plays and been able to try teaching different parts of the programme have been very exciting and a good learning experience for my part'

In addition they expressed gratitude for the invitation to participate, and several facilitators referred to the joy and laughter that had accompanied the hard work between and during the workshops.

Fg: '...has been a personal growth and learning. But also participating in a research project like this, so I think it is very exciting and very enjoyable. I am looking forward to our meetings; everything has such a positive focus, making it enjoyable even though we know that it will be busy'

However, they discussed whether working on details in the manuscript sometimes had taken time that could have been better spent on overall discussions of pedagogy and the purpose of the intervention.

## Category three; purpose

According to the facilitators, the *purpose of our role; enabling by posing the questions* was understood to be at the core of the underlying pedagogy for the education intervention, and also the rationale for composing the facilitation teams to consist of assistant professors from the university colleges and practice developers.

Fb: '...I think the pedagogy is the reason for the presence of the University colleges ...(..) and I think both when we teach, and certainly when we coach, we shall pose the questions and they (*the staff*) shall come up with the answers. Then, of course it is

helpful with a lot of experience from caring for persons living with dementia and having taught related to these questions. But I do not think this is the most important thing, because if so, they (*the project leaders*) should have recruited the facilitators from elsewhere'

They agreed that in addition to ease the requirements to the facilitators' role performance, coach to use a tool, not being oracles presenting the answers, was an important way to demonstrate respect and acknowledge the skills and expertise within the staff. While external facilitation to use the seven- step model in shared decision making was anticipated to be of value for the nursing homes, there was a general agreement that the staff held the best personcentred and professional knowledge of their residents.

Fd: '..that we are humble towards the staffs' competence. That we include and 'play on it' and do not express ourselves as a panel of experts that are coming to 'force our opinions upon them'. But on the contrary, that this is a tool they will be introduced to work with, and that we will try together to find solutions'.

#### Category four; role

Reflecting on their own preparation to undertake the dual role of facilitation and research, the facilitators *appreciated the approach to learning:* having had several meetings where they had received and given feedback, the model being introduced and revised, and also that they had been given sufficient time during one year to "...consume, read and understand" (Fg).

Fh: '.. it has been a very nice way of doing this. The different methods of first being presented, thereafter having to coach and then been given feedback before we again retried. So this way ...(...) we have been pushed'

Further, the tools and written materials, as well as the participation in decisions of the design and of how they would like to be prepared for the facilitation role was considered to be important. The *ownership achieved by participating in revising the education material and methods* had been *a way to get it under the skin*.

Fd: 'yes, because you have opened up for feedback, and this has made us go immediately into details, sometimes maybe too much. But this is due to us knowing that next time we are going to pass on this, and then we must own it, and we must understand it'.

The facilitators were aware that the detailed revisions on sentences and sequences in the education material had been challenging for the authors (IT & AMÅ) at times. However, they regarded this process as an important prerequisite when one of the study aims was to test the effect of a standardized intervention which should be delivered by four facilitator teams with individual skills and attributes.

Fb: '...what I am thinking of is that we are a bias, and in this (*trial*) everything must be the same.(..) so therefore, (..) as I see it, it is important that we have removed as much inaccuracy and nonsense as possible before we do this. And this is challenging and painful, but if we are going to manage this everyone must contribute with all their feedback.'

On the other hand, despite agreeing that thorough feedback on text was necessary to ensure fidelity to the trial protocol they realised that their facilitation would be influenced by the contextual elements in the different nursing homes. Nonetheless, they regarded the thorough "massaging of the manuscript" (Fd) as essential to ensure that the basic ingredients were kept as similar to the protocol as possible.

Fd: 'However, it will always differ in the meetings with other people. In the relation, and also in the way we are welcomed; the context and the culture will influence how we are able to feel at ease, and also the feedback they give us. ...(...) But anyway, we are still doing as much as we can in order to perform as similarly as possible when we teach the lessons.'

Related to the dual role, they found it *exciting to participate in an action research process*. It was a new experience for all to take part in the spiralling movements of actions and reflections, and being invited to influence from the outset and all through to the co-creation and dissemination of knowledge at the end of the research process.

Fg: '..and then I find it very exciting to participate in such a research project where we have been invited to influence the process and on how the final result will be. This, I really enjoy; having participated in all these visions. I find this way of working very exciting, and also developing and enjoyable'.

#### Category five; skills & attributes

The facilitators felt prepared and looked forward to facilitate the intervention albeit that some of the facilitators said that they initially *had anticipated more introductions to the theoretical underpinnings of the model* to ensure that they all shared the basic underlying theoretical foundations. They now felt as prepared as they thought it possible to be during the plenary workshops, however, they still found *individual learning necessary to be confident to transfer to others*. Hence, they would use the last weeks to internalise the content and 'get it under their skin'. While realising that they could never prepare for everything that could happen, they felt *safe being in a complementary team*.

Fg: '...and here I feel that we can support each other. Fh feels safer concerning literature related to dementia ...(..) I do not know to what extent I can use time to read the things I had planned. I suppose it is something I just have to live with'

Fd: '....(..) and I know Fc has a lot of competence and experience, and I am very lucky to be in a team with her'

The uncertainty felt by the facilitators was particularly related to the themes that could be brought up in the coaching sessions. Unlike in the seminars, these could not be controlled and for Fh this made her:

'more anxious about the coaching, on these nuances". We experienced it a couple of times .. (*in the role-play*).. what is restraint and where etc. Also, when we shall identify the problems.'

Nevertheless, the majority felt they possessed *the skills needed for coaching*. They saw their role in posing questions and evoking the staff's own knowledge and guiding them in using the 7-step model when finding and deciding on viable solutions in their particular context. Thus, with their confidence in using the 7- step model, and having the possibility to ask IT & AMÅ for supervision on request they felt as prepared as they thought it was possible to be.

Fa: '.. so the frames are there, and the tools, so I suppose the most challenging will be to meet them (*the staff*)'

On the other hand, some suggested that more time could have been allocated to role-play to train *the flexibility and courage to meet the unexpected*, to the expense of some of the time spent on details in the written material. However, they all agreed that they would always encounter surprises in real life situations that they just had to face.

Fd: 'I think, in the coaching situations, then it is a relation to people and staff that we have not met, and a culture we do not know. This, we can never be prepared for. But this is also part of the excitement. However, we have this luggage now, and now we must just take the risk and, as you said, dive into the unknown. And this is not possible before we are there'

#### **Additional categories**

One additional category was identified in the interviews in Action Cycle of the facilitators *not feeling included as real researchers*. Despite the positive feedback connected to the objectives for the Participatory Action Research process, the facilitators did not feel included in the whole research process. This materialised clearly as an additional category in the transcript from FG3. Some spoke of the 'real' research, others used words like 'the whole' research project. Fb referred to her previous experience as a ward nurse assisting in medication trials when she:

Fb: '....sort of felt like a working horse doing all the hard work, while others got all the credit by publishing papers etc...'

It was not a good feeling, she said. Her feelings of being excluded from the research part of the MEDCED study were shared among the asst. professors, whereas the practice developers supported and said that they could understand their feelings. Thus, there was a general agreement that we hitherto had not succeeded in creating a democratic and communicative space for them as researchers.

#### **Conclusion**

Overall the facilitators agreed that the hypothesis concerning the pre-intervention could be confirmed in the sense that they felt prepared to undertake the facilitation purpose in a standardized role as prescribed in the intervention protocol for the MEDCED study. The findings showed that they were satisfied with the participatory process of preparing and refining the educational methods and content of the intervention. Through this process they had gained an ownership to the material and methods. Interestingly, they found that this had made them confident that they actually could undertake a standardized intervention in three NHs each. At this stage of the study, they felt as prepared as they could possibly be. The proof of the pudding, as they said, would come when they were facilitating in the nursing homes.

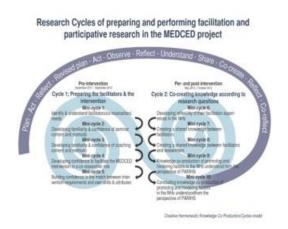
However, the data also showed that the facilitators did not feel included as participant researchers in the whole MEDCED study. Whilst this partly could relate to the world view and consecutive ideas of RCT being the gold standard in medical and health related research, it also showed that we had to put more emphasis on including the facilitators in the whole research process. Thus, our agreed conclusion in Action Cycle One was that we had succeeded in creating a 'Communicative space' when preparing the facilitation. More focus, however, was warranted to include the facilitators as participant researchers.

Consequently, as described in chapter 3, I decided to introduce a critical creativity approach to ensure a 'communicative space' (Kemmis, 2011) for the participative and democratic analysing and knowledge co-creation I had planned should take place in Action Cycle Two.

# 6. Action Cycle Two; Co-creating knowledge according to the research questions

## Introduction

Action Cycle Two comprises five mini-cycles of action between the facilitators, my co-



moderators and me from February 2013 – October 2014 (Fig 5). Mini-cycle six took place after half of the intervention was delivered. We followed the same pattern as in the previous mini-cycles for this session; starting with a supervised reflection and ending with an FG to explore the interaction between facilitation and the nursing home contexts. The remaining four mini-cycles were

held when the intervention was finished. Within these we aimed at co-constructing knowledge of how the factors that enable or hinder successful uptake of the decision-making model in the nursing homes could be understood from the perspective of PARIHS,.

I start by first describing the activities in mini-cycle 6 and the findings mapped to PARIHS from FG 4. I continue by describing the Creative Hermeneutic Knowledge Co- Production (CrHeKCoP) model I introduced to ensure a democratic and authentic participatory knowledge creation for the remaining mini-cycles. Potential values and challenges in terms of polyvocality related to persons, modes of expressions and epistemology are discussed and thereafter exemplified by descriptions and excerpts of our working process in the remaining mini-cycles 7-10. Our concluding findings are summed up and discussed in relation to the PARIHS framework and presented in mini-cycle 10.

## Mini-cycle 6; developing reflexivity of the facilitators' experiences

This full day workshop took place at the Centre for Care Research Western Norway, between six facilitators, IT, my co-moderators and me. The meeting had not been planned from the outset, but was arranged on request from the facilitators to clarify how they should react when the nursing homes no longer could bring current 'restraint- cases' to coaching sessions. In addition, they wanted the possibility to meet face to face to discuss challenging situations with their facilitator colleagues, and simultaneously be supervised by IT. None of them had so far asked for the 'telephone supervision' offered as a part of the MEDCED-intervention protocol.

The facilitators also wanted to reflect systematically in the group on how the contextual elements interacted with their facilitation in the particular nursing homes. They found it difficult to do this on their own without being prompted by questions and spurred by the considerations of their colleagues. Two facilitators (Fd and Fg) were absent due to holiday and sickness. However, their partners had agreed to update them, and they were offered both audiotape and transcripts from the session.

Concerning the coaching protocol, we agreed to change in line with the suggestions from the NH who had solved their current case; thus, the coaching sessions should continue as planned, and the NHs could choose either to reflect on a previous difficult situation, or to use the key case 'Per' and relate to challenges in their own context. The reflection notes show that when relevant, the NHs had chosen the first option.

The supervised reflections lasted for two hours followed by a short lunch. The activities alternated by the teams narrating how they had coached in situations they had found difficult, and IT supervising and sharing examples, as well as plenary feed-back and reflections on other possible options. The session was highly appreciated, and the facilitators advised that similar team-based 'supervision-on-coaching' on a monthly basis should have been included as part of the intervention, possibly on Skype or videoconference.

# Focus group 4; reflecting on the teams' facilitation of three seminars and nine coaching sessions each.

The main objectives in this FG were to explore and reflect on how the facilitators experienced that the different contextual factors in particular NHs influenced or interacted with the way they taught and coached in these places. Also, how they perceived the significance of their own skills and attributes when delivering the intervention. They were expected to reflect on these issues with their partner when writing the reflection notes. However, they found it difficult to meta-reflect on their own. They wrote the notes immediately after the facilitated sessions, and they discussed whether they at that point were too consumed in the particular cases and the strategies they had used – or not – to master being reflexive without the input and associations they had experienced in the focus group interviews.

However, in the current focus group reflections with the other facilitators, and prompted by questions from the researchers, they participated in data creation by verbalizing experiences and observations from the seminar and coaching sessions. There were also episodes where the

facilitators seemed to create new meanings and knowledge during the process of sharing ideas and reflecting on their experiences compared to the other teams' stories.

The interview lasted for one hour and twenty minutes, was recorded using an iPad, and transcribed verbatim by me into a total of 24 pages (Details in appendix 6).

## The analysing process

I followed the directed analysing procedure as previously described. This time however, the meaning text units from the first identification were grouped and presented in a table after rank order comparison of frequency (Hsieh et al 2005), and finally sorted according to the sub-elements and categories. However, the rationale for ranking and counting of statements in a focus group interview can be questioned. Unlike individual interviews, one of the advantages of well-functioning focus group interviews is that the members interact and engage in discussions building on the other members' arguments and reflections. This was also the case in FG-4 where the facilitators mainly confirmed or opposed, rather than repeated statements from the other facilitators. The confirmations were done both orally and by the use of body language, and were not counted as a part of the ranking. Nevertheless, during the interview some statements were confirmed by repetition. The fact that they returned to and found it necessary to repeat these statements may indicate these to be of particular importance. Hence, I used the rank order as a practical way of initial sorting of the statements.

Factors illustrating findings from the interview were developed within the element of **Evidence** and the **contextual sub-elements of Culture** and **Leadership**. When suited, these factors were tried fitted to the continuum from weak to strong according to the anticipations of PARIHS, which correspond to a low and high end of a continuum (Table 5).

However, when starting to search for meaning units connected to facilitation I began to see a connection between the facilitators' individual skills and attributes, and the way they reacted and commented on both their own and the other facilitators' experiences from the teaching and coaching sessions. The two teams that were complete also constantly asked their partner to confirm or follow up on statements. Therefore, when identifying the meaning text units and forming factors related to facilitation, I found it more feasible to paste the highlighted statements in a table according to the four facilitation teams. In the next round, these statements were grouped and sorted according to themes and sub-elements of **Facilitation** in the PARIHS framework (Appendix 12).

According to agreement, the transcript was sent to the participants for comments, and I asked them to correct or add to their respective statements if they wanted to. The two absent facilitators were specifically encouraged to send me their thoughts, ideas or questions after having read the transcript and being updated from their partners. As previously, I received no request for changes or additional comments. One facilitator sent an email to confirm and elucidate a statement I had difficulties hearing from the audio file. As they all do this facilitation on top of their ordinary jobs, they find it challenging to spend more time than already scheduled to the project. However, both absentees sent emails saying that they appreciated the possibility to keep up with the process in the "big facilitation team". One of them (Fg) called and asked for a meeting in connection with a trip to Bergen. She had read the transcript in advance and mainly confirmed and illuminated the statements of her partner. She had no additional information.

## Preliminary findings FG 4

Similar to FG 3, factors derived from meaning texts units in the transcript are presented in table 5 connected to the PARIHS element, and when suited they are placed according to the PARIHS continuum ranging the elements from low to high according to their anticipated contribution to influence the success of an intervention (Kitson et al 2008, McCormack et al 2007). Some of the statements leading to the formation of factors are translated and mapped to the PARIHS elements in a table in appendix12. However, as the interview was part of an ongoing knowledge construction, I have only found it relevant to cite the factors and present them in the text in italics when summarising the preliminary findings. Statements related to facilitation are accredited to the actual facilitator in appendix 12, and all statements are summarised in Norwegian in additional files. These have been audited by my co-moderators and my Norwegian supervisor.

In addition, one longer extract from the interview is presented in appendix 13 for several reasons; first, to illustrate the meaning units related to the facilitators' roles, also how the individual facilitator's skills and attributes influence their views and perspectives when they discussed a case of which it was difficult to decide whether or not represented restraint according to the Patients' Rights Act. Secondly, the dialogue also demonstrated how the interaction and inputs from the co-facilitators spurred their reflection and reflexivity on their own performance. As earlier described, the fourth interview had been requested by the facilitators partly because they found it difficult to reflect on their own role performance only within their own facilitation team.

Table 5 Meaning units from focus group interview 4 (FG 4) mapped to the elements and sub- elements of PARIHS

ELEMENT	IHS FRAMEWORK SUB-ELEMENT	MEANING UNITS FROM FG-4 – weak / low end	MEANING UNITS FROM FG-4 – strong /high end
Evidence	Research/ clinical experience/Pt's experience/ local data/information	Limited attendance at coaching sessions and limited follow-up and implementation between the sessions     Hardly anyone bringing the written manual or poster of the decision-making model to the coaching sessions     Requires systems and organisational structures that few nursing homes have in place	<ul> <li>7-step model structure decision- making and emphasize the potential of reducing restraint and agitation using person centred care</li> <li>Underscores the value of shared decision-making and concerted actions towards residents living with dementia</li> <li>Creates an arena for group reflection and systematic discussions of challenging situations not usually happening in nursing homes</li> <li>Coaching at the nursing homes enhance the staffs' experience of being seen and acknowledged for the challenges they meet in their daily work</li> <li>The seminar lectures acting as a shared frame of reference as well as creating foundation for relationship building /trusting relationships</li> </ul>
Context	Culture	<ul> <li>Limited person centred knowledge</li> <li>Opposition towards change"</li> <li>Individualized care-plans lacking</li> <li>Unskilled staff treating dementia symptoms as deliberate ill- mannered behaviour</li> <li>Patients insufficiently diagnosed with dementia</li> <li>Low degree of evidence based care</li> </ul>	<ul> <li>Highly skilled and educated staff</li> <li>Open to share the things they find difficult</li> <li>Confident staff; sharing and supporting each other</li> <li>Acting quickly implementing after being demonstrated evidence-based instruments</li> </ul>
	Leadership	<ul> <li>Weak and inexperienced leader</li> <li>Many informal leaders</li> <li>Leading from a distance</li> <li>Lacking structures and systems</li> <li>Pulverized leadership</li> </ul>	<ul> <li>Enthusiastic and appreciative leaders</li> <li>"present" leadership/mangagement</li> <li>Leader takes responsibility and systemize the follow-up between the coaching sessions</li> </ul>
	Evaluation (have to look more closely to the	<ul> <li>Not used to sit down and discuss difficult situations</li> <li>None/ inadequate system for documentation and follow-up</li> </ul>	<ul> <li>Systems and structures in place</li> <li>Staff used to discuss difficult matters</li> <li>Practice systematic ethical group reflection twice a</li> </ul>

	Parihs descrition)	Lack of individual care plans	month
Facilitation	Purpose	<ul> <li>Appointed role of external facilitation including administration and project management tasks in conjunction with the nursing home directors and the ward leaders</li> <li>Facilitate decision making in nursing home staffs using a 7-step model to reduce use of restraint and psychotropic drugs in resident with dementia through:         <ul> <li>2 day seminar teaching all staff using a standardized educational content and methods covering living with dementia, BPDS understood as unmet needs, Person Centred Care including staff feelings and reactions.</li> <li>Coaching at the nursing home ward 1 hour x 6 month using the 7-step model related to authentic persons in the NHs where the staff experience challenges related to agitation and restraint.</li> </ul> </li> </ul>	
	Role	PRACTICING THE ROLE DURING THE SEMINARS	PRACTICING THE ROLE WHEN COACHING IN THE NURSING HOMES
	How do they practice their role?	<ul> <li>Different strategies for sharing the tasks and responsibilities agreed within the each team based on skills and familiarity (feeling at ease) with the standardized methods and themes.</li> <li>Comfortable using own examples – good to have a manual to choose from</li> <li>Personal skills and attributes; a fidelity issue?</li> <li>Sensitivity to contextual elements influenced by professional work experience?</li> </ul>	<ul> <li>Sharing the coaching tasks varied across the teams for pragmatic reasons</li> <li>Use the 7-step model to structure the sessions; however, the facilitation strategies and time spent on each step are influenced by/ decided according to the interaction within the particular NHs</li> <li>Asking open ended questions, however varies according to the facilitator's' focus and professional position</li> </ul>
	Interaction between facilitators and context	CONTEXTUAL ELEMENTS INFLUENCING THE FACILTATORS FEELINGS AND SENSE OF SECURITY IN THEIR ROLE - LOW END:  • Low attendance in coaching sessions • Absent leaders • Little or no follow-up between sessions • Limited feedback – few people talking • Not being expected – forgotten that they should come	CONTEXTUAL ELEMENTS INFLUENCING THE FACILTATORS FEELINGS AND SENSE OF SECURITY IN THEIR ROLE -HIGH END:  Receiving articulated gratitude Being expected and welcomed Feed-back reporting success after implementing changes decided in the coaching sessions When the staffs experience the value of the 7-step model
	Skills and attributes	CONFIDENCE IN THE ROLE OF FACILITATING MEDCED –	CONFIDENCE IN THE ROLE OF FACILITATING MEDCED –

	LOW END	HIGH END	
	Using methods they are not comfortable with (the scrub)	<ul> <li>Comfort and pleasure working in a team with complementary skills</li> <li>Comfortable using own examples – good to have a manual to choose from</li> <li>Structured manual – easy to follow because we have gained "ownership" to it through participating in revising both content and pedagogical structure</li> <li>7- step model easy to follow – also because the idea is to help staff structuring their own knowledge to find solutions for change</li> </ul>	
Additional ?? Reflections on sustainability	<ul> <li>Amazed by lack of documentation and systemized follow-up on care plans</li> <li>Shocked by lack of knowledge, especially from unskilled staff members</li> <li>Lacks of systems leaves little hope for change at the organisational level</li> </ul>	<ul> <li>Believe in a change on the individual level</li> <li>Increased hope of sustainability in homes that have experienced success stories</li> </ul>	
Rating – could be seen as		High rating due to enthusiasm and possibility rather than ability	
reflections of the understanding	Underlying atmosphere and staffs' report on value in implementing necessary changes		
of the theoretical assumptions of			
PARIHS?	<ul> <li>Degree of ability to implement changes on a syst</li> </ul>	em level	

#### Category 1; evidence

When asked what they regarded as the active ingredients in the MEDCED intervention, the facilitators related 'evidence', as depicted in the PARIHS framework, to both *the seminar lectures and education material acting as a shared frame of reference* in understanding the main message of the intervention. They experienced that *the 7-step model structure decision making and emphasize the potential of reducing restraint and agitation using person centred care*, as well as *underscores the value of shared decision-making and concerted actions towards the residents living with a dementia*. The text and methods, as well as the facilitators sharing case stories and examples from their own nursing practice and telling about their own feelings towards patients in difficult situations, had contributed to establishing a trusting relationship they found to be an important ingredient of the intervention.

Particularly, step 1 of the decision-making model was found helpful in facilitating person centred care because of the focus on knowing the patient as a person; trying to understand the situation from the viewpoint of the patients and relatives before continuing to the other steps and discuss the possible measures that could be implemented.

In Norway, the staff in Nursing homes are not commonly offered systematic and structured coaching. Hence, the structure of the intervention that required the staffs and their leaders to sit down and discuss difficult situations was reported to be highly appreciated by the staff. By creating an arena for group reflection and systematic discussions of challenging situations not usually happening in nursing homes, the intervention contributed to conditions that in themselves could be effective. The fact that the facilitators did the coaching in the nursing homes was described by the facilitators to enhance the staffs' experience of being seen and acknowledged for the challenges they meet in their daily work.

On the weak side in terms of the likelihood of sustainability after the project period, *limited* attendance at coaching sessions and limited follow-up and implementation between the sessions reduced the facilitators' belief in the effect of the intervention. Pre-intervention and after the seminar, the facilitators had great belief in the value of the written educational materiel. However, they registered that hardly anyone brought the written manual or poster of the decision-making model to the coaching sessions. Neither did the staff refer to the written materiel or to the 7- step model during the coaching sessions. In addition, the facilitators also identified a limitation in that successful follow-up between the sessions, and particularly

sustainable implementation of the decision-making model *requires systems and* organisational structures that few nursing homes have in place.

## Category 2; context

#### Culture

When talking about the contextual elements they experienced, the facilitators pointed to the *variations within and between the nursing homes*. Not only between the three nursing homes each team facilitated, but also the differences they experienced <u>within</u> the particular NHs. In some NHs most of the staff were skilled, but in the same homes the facilitators *reported unskilled staff treating dementia symptoms as ill-mannered behaviour* rather than understanding agitated reactions as a consequence of the illness.

One of the facilitators also referred to nursing home staff having *limited person centred knowledge*. This became obvious when they asked more specific questions about the routines and the way the staff worked and shared the tasks and information between them.

The variations between the nursing homes also applied to the follow-up, or not, of the agreed measures from one coaching session to the next. In some places the facilitators experienced high engagement during the coaching sessions, and at the same time nothing happened between the sessions. In other places, they experienced less obvious engagement during coaching, and were surprised when they the next time found that the staff had managed to implement the agreed measures and sometimes also could report that this had resulted in successful changes to the patients' care plans. A common experience across the teams was that the follow-up on group decisions from the coaching most likely occurred when the structures and systems were well in place. Connected to this, the leader's role was reported to be of importance. The facilitators discussed whether follow-up and actions taken as decided in the coaching sessions appeared more often in the places where the leader's office was placed in or close to the ward so that she could share more of the episodes from the daily practice. However, the picture was complex and they were not sure; one team also referred to a success case happening *despite opposition and lack of support*.

#### Leadership

Overall, the facilitators seemed to agree on the interrelation between leadership and the degree of follow-up between the coaching sessions. However, there seemed to be some disagreement concerning the underlying factors. The facilitators agreed on the leadership's importance for several reasons. First, for the initial motivation and organisation of the

formalities connected to the seminar and coaching sessions. Second, for the number of participants showing up at the seminar and coaching. Third, for the degree of the staff's ability to fulfil the agreed objectives between the coaching sessions, and their consequent success in changing the routines for the care of particular persons.

However, one team identified structural and system factors more clearly, and was less able or willing to connect the lack of leader involvement to the leader herself. They had experienced this to be fluctuating and more related to situational factors like sickness, influenza season etc., than a permanent way of supporting - or not- the intervention. As they saw it, it was more related to how the leadership was organised. The facilitators had begun to question whether the leader's physical placement in relation to the department in terms of being closely linked to the field of practice, was more important than leader's personal engagement and motivation or understanding of the project, or whether her leadership style was insecure or dominating.

#### **Category 3: facilitation**

#### Skills and attributes

All facilitators are nurses holding long work experience from either nursing homes, older people's care or nursing education. Several have further education in elderly care, dementia care, leadership or education. They have also continuing professional education (CPE) within different fields of elderly care and/or management and ethics. Six possess a Master's degree (MA). Further details of the facilitation teams' skills and attributes, and the way they work are described in appendix 12.

Except for a method of using a scrub to talk about and simultaneously cutting leaves and branches off the scrub to demonstrate how persons living with dementia gradually are deprived of their cognitive skills and abilities (re table 3), and what the facilitators referred to as initial and natural 'lamp fever', they had confidence in facilitating the MEDCED intervention. Two reasons were prominent in their explanations, both related to their previous professional experiences. Those with experience from older peoples' care and particularly from working in nursing homes found that it helped them to gain respect and increase their credibility when transferring the message in the intervention. The assistant professors related their confidence to their experience as teachers and supervisors. Taking part in revising the material and pedagogical structure as well as role-playing the content with their team partners added to the feeling of self-assurance in the facilitation role. They told of comfort and pleasure working in a team with complementary skills, particularly when they should teach a

standardised material they had not developed themselves. However, as they had anticipated at the end of the pre- intervention phase (EI-1), having been invited to participate in revising and influencing the pedagogical structuring of the material had not only helped them to be better suited to ensure fidelity to the trial protocol, but during the process of revising and role-playing to teach the different parts of the two day seminars, they had also been familiar with their respective strengths and weaknesses. All teams had aimed for solutions where they could profit using experience from their professional career for instance as leaders, nurses in older people's care, practice developers or teachers when distributing the different educational tasks within their team.

They reported 'fantastic experiences', they were enthusiastic and felt that their well-functioning team was part of the explanation for the great evaluation notes they got after the seminars. The teams that knew each other in advance accredited the feeling of safety and team-performance to their long standing personal and professional relationship. The two other teams said they had been united by the fact that they both could take part in a programme that none of them had created and did not have a particular "ownership" to. Consequently, they had felt free to critique and engage on equal terms to change the programme in order to improve the end quality. The experience of the joint responsibility to teach and coach as well as participating as action researchers to ensure fidelity to an RCT- protocol, added to the relief of being two. Hence, it encouraged the process of bonding them as a team.

The facilitation teams used different strategies for sharing tasks and responsibility when teaching in the seminars based on skills and familiarity (feeling at ease) with the standardized methods and themes. It was comfortable using their own examples, but also good to have a manual to choose from for the less experienced facilitators. Using examples from their own practice was experienced to help explain in a way that the facilitators assumed made the content easier to understand. It also increased the repertoire they could use to explain difficult elements of the educational content.

Similar to the teaching in the seminars, all teams were cognizant of sharing the tasks of coaching to avoid that none of them dominated. Sharing the coaching tasks varied across the teams for pragmatic reasons. All teams used the 7-step model to structure the sessions; however, the facilitation strategies and time spent on each step were influenced by their interaction with the particular NHs' culture and staff.

The facilitators felt comfortable using the 7-step model when they coached. The model was experienced to be especially helpful to structure the coaching sessions and ensure that all elements in a situation were discussed and mirrored before the process of finding alternative solutions started. However, the number of steps the teams were able to fulfil per session varied between the NHs due to a variety of reasons, such as: the level of person centred knowledge of the resident and his or her perspective; the skills and degree of activity within the attending staff; whether the NH had structures or systems in place to follow up decisions between the coaching sessions; whether the leader was present, and if so, the degree of her/his participation and interaction with both the facilitators and the staff.

All these factors were reported to influence on how each coaching session was performed. But this did not only vary across the facilitation teams. The **particular way** the 7-step model was used within the same team also varied, due to the facilitators' interaction with the contextual factors in the different NHs. Because the staff worked shift hours, the individuals who attended the monthly coaching sessions varied. One of the facilitators said that she had experienced that her coaching practice and the consequent results in the same nursing home varied. She explained this to be caused by the amount and quality of the response she got, and the interaction she was able to create with the staff being present. The more creative, knowledgeable and active staff members; the better questions she was able to pose. Consequently, good circles were spurred because better questions from her increased the staff group's potential to find person centred and original solutions to difficult situations. In turn this increased the possibility that the staff would find that their collectively agreed measures helped in finding alternatives to restraint, which again increased the potential adherence to the transferred knowledge. This, she said, not only made her happy because she took it as a proof that she mastered the task. More importantly she was energised and motivated when the staff the next month said that she had been able to help them solve a difficult situation.

All teams said that they used their coaching skills to pose open-ended questions. However, when elaborating on particular situations they had coached, and describing in more detail the themes they had centred their questions on, it became clear that the different teams had highlighted slightly different elements. Despite taking care to follow the coaching protocol, our findings indicate that the facilitators' professional experience and beliefs influenced the particular elements (for instance law, ethics, practical problem solving, etc.) in a complex

situation they started to unravel when they coached. This became particularly clear in the dialogue which is presented in appendix 13 ('The dog picture').

#### **Reflections on sustainability**

Related to the value of the MEDCED intervention in terms of sustainability, the facilitators had changed their minds. At the end of the pre-intervention phase, and after lecturing in the seminars, all facilitators had believed that the intervention could result in sustainable changes in the nursing homes. However, after three coaching sessions this anticipation had turned into scepticism. Lack of systems and structures, and a low degree of evidence based working methods contributed to these sentiments. They were 'amazed' by the lack of documentation and systematic follow-up on effect of care plans, treatment and medication, and 'shocked' by statements from some of the unskilled staff members indicating that the patients were mean and deliberately refused to co-operate, rather than understanding the patient's reactions as a part of the illness. They 'hoped' that the MEDCED intervention would have some impact on the way the residents with dementia were understood and consequently treated, but found it 'sad' that the knowledge systemised and taught in nursing schools in the 1970 – 80s was not better known.

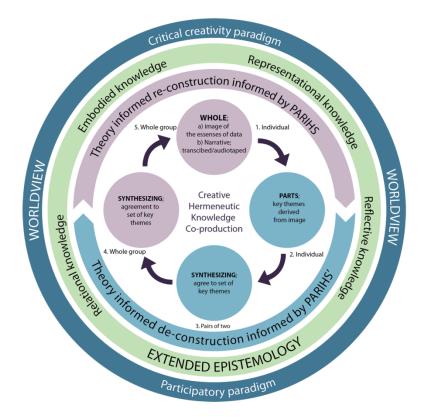
However, they still 'believed' in a change at the individual level, particularly related to understanding the importance of gathering sufficient information about the patients as persons. In particular, they were optimistic on behalf of staff members who had experienced success stories and the value of 'sitting down to discuss patients systematically'. Thus, in those places they anticipated that the staff would continue, 'in a way' (Fb). The facilitators also 'hoped' that the staff would end up following the regulations in the law and practice person- centred care. This will require regular discussions in staff meetings at least once a month, but as Fb concluded, she:

'...had a growing feeling that these sessions would end when the intervention finished, although the fact that the NHs had found time to schedule the meetings in the six months' project period should indicate that they were also able to do so after the intervention had stopped'.

# The Creative Hermeneutic Knowledge Co - Production model

The systematic way of integrating creativity into the participatory analysing and knowledge construction was inspired by the creative hermeneutic data analysis developed and described

Figure 7 The Creative Hermeneutic Knowledge Co-Production Model (CrHeKCoP)



by Boomer and

McCormack (2010). However, unlike when analysing texts that were produced by others (Boomer and McCormack, 2010); in our study the facilitators had produced the text that we should analyse collectively. In addition, they had continued to facilitate the MEDCED intervention after the fourth FG, and thereby increased their experiences and reflections linked to the

research questions since their prior reflections had been transcribed to text. Hence, for the purpose of our PAR study, I found it more suitable to name our activity for critical hermeneutic knowledge co-production, and underscore that the facilitators should bring their total experiences into the ongoing spiral of knowledge construction. The CrHeKCoP- model was created to guide our activities, as well as to visualise and acknowledge the philosophical and epistemological assumptions underlying the use of methodology (figure 7).

As depicted in the outer circle, our knowledge construction processes are situated within a participatory and a critical creativity worldview. The hermeneutic circling between the whole and parts includes the four knowledge types of representational, relational, reflective and embodied knowledge. All our CrHeKCoP- sessions followed the same pattern as illustrated with the inner rings; starting with an individual work to create an image of the total understanding related to the research questions, and thereafter individually and in pairs of two

continue to de-construct the whole into parts, and finally, ending with a collective reconstructed image of all the participating parties' understanding related to the research questions. A detailed procedure including the time spent on each sequence is presented for each of the mini-cycles 7-10 in appendix 6.

# Advantages and challenges?

The greatest advantage of the CrHeKCoP-model, in my view, is that the model systematically diversifies an individual and collective approach to a participatory and democratic knowledge construction which is situated within a pluralistic approach to worldviews and knowledge types, as well as creative and cognitive methods. Consequently, by giving room to individual and concerted reflection, and 'embracing ways of knowing beyond the intellect' (Reason and Bradbury, 2011): 454, I will argue that the CrHeKCoP-model offers a polyvocality (Lincoln and Denzin, 1994, Chamberlain et al., 2011) to explore and capture a fuller understanding or 'truth' connected to complex and diverse findings. The attributes fit well with the values and aims of PAR research. Hence, I find the approach well suited to make inferences from data linked to the dynamic nature of nursing and health care practices. And better so than more traditional and single approaches based on cognitive and verbal endeavours.

The polyvocality is integrated into the CrHeKCoP process in several ways; first, by making space for all participants to simultaneously express their individual understanding without being influenced by co-participants, or being prompted by interview questions to reflect in a specific direction. By leaving it to the persons themselves to decide what to focus on, and how to represent their story in images and text, the CrHeKCoP-model opens the room for:

'not one "voice", but polyvocality; not one story but many talks, dramas, pieces of fiction, fables, memories, histories, autobiographies, poems and other texts' (Lincoln and Denzin, 1994):p.584.

Secondly, more senses are invited and space opened for a mixture of approaches to explore and co-create knowledge from a broader view of 'reality' in which artistic and embodied reflexivity are featured alongside the more traditional representational, reflective and relational knowledge. By this circular movement starting with individual reflection, and thereafter deliberately making use of the interaction between the participants in the collective knowledge creation, the CrHeKCoP-model offers the possibility of combining advantages of individual and focus group interviews (Berg and Lune, 2004, Freeman, 2006). Finally, the participants are invited to represent their views in a number of ways, such as poems, images, oral and written texts. To this effect, the model not only gives room for a plurality of

embodied, visual and oral 'voices'. It also extends the way research users can access the findings and scrutinise the validity claims.

When the CrHeKCoP-model was used in a multi-stage spiralling process of mini-cycles as in our project, the model was able to adapt to a timeline of circular and ongoing 'pre-texting'



and 'con- texting' processes (Usher, 1997); starting each mini-cycle individually to reflect on the previous collective understanding, and thereafter interactively reflect and co-create knowledge in plenary before ending the current session with a fuller collective understanding subsequent to the next mini-cycle. In the following excerpt from a conference presentation, facilitator Fd shares how she

perceived her circular process towards a fuller understanding from mini-cycle 7 and 9.

Fd: ...in October, I also found that my "creation" from June was perceived in a different way than in the first and second presentation. The content of the image was the same, but maybe my awareness and explanation of what I really had illustrated became clearer when I presented it in October, compared to my first presentation in June. It may be that I the second time had gained more experience and verbalised it in a different way. Also, because I used English (*re mini-cycle 9*) when explaining the

last time, the content was worded in a different manner. Or it may be that the researcher (Tone Elin) saying that she anticipated this differently? She had read more reflection notes since the last presentation, and therefore had a better background to understand the data that was illustrated and presented. Also, I think that we got more time for the presentation in October,



and I also had to explain it in more detail since Prof McCormack was present. The first time I might not have explained it so precisely because I thought the others understood the illustration and did not need me to describe it as thoroughly? (Fd; Part of Fd's presentation at the CARN conference 2013)

As illustrated in the CrHeKCoP-model (figure 7) we used a directed approach theoretically informed by the PARIHS framework in the stages of hermeneutic de- and re- construction. However, I anticipate that other analysing approaches might work as well.

The main challenges to the model are that it is time and space consuming, as well as in need of a variety of creative material that traditional research environments might not possess.

However, compared to other research related costs like for instance production and distribution of surveys, the costs of the creative material is reasonable. Moreover, since many people are unfamiliar with the use of creative and artistic approaches, the CrHeKCoP-model will require a safe space to alleviate opposition and potentially bad feelings towards painting, drawing or other artistic expressions. In a presentation one of the facilitators said that she did not particularly like to participate in creative activities, because she often felt uneasy and became concerned with her lack of artistic skills. However, she said she had ended up being greatly in favour because of the revelations she had got when we had used creativity to coproduce knowledge post-intervention. At the same time she acknowledged that for her, feeling safe that the other participants did not judge her was part of why she had changed her mind.

Fg: I think a prerequisite - at least for me - is that this happens in this group of ours. We have worked together over time and have confidence in each other both academically and socially. It is a group characterized by humour, support, and respect. This applies not least to the way we are "led" through the various phases, and the possibility of participation in all parts of the process. (Part of Fg's presentation at the CARN conference 2013).

The researchers introducing and facilitating the CrHeKCoP- model for the first time may find that the creative and alternative approach will challenge their comfort zones. Consequently, there may be a danger, especially in the beginning, that this unfamiliar role and potential feeling of unease can contest the researchers' ability to concentrate on the analysing process and the aimed results.

However, like we experienced, the deviation from what we had done nearly all the time during the two years we had been together - talk and discuss - may also trigger a welcomed excitement to participatory research processes. Being the responsible researcher, I clearly felt that the model added dynamism to our group effort. I was also greatly relieved when I experienced how the approach enabled a more democratic and authentic collaboration; now the facilitators took active part in the analytic hermeneutic de- and re-construction, instead of only confirming the preliminary analyses made by me. Consequently, the dynamic and partly unpredictable actions brought along a refreshing energy and change of roles that I think is important to recognise during the course of a three year research project.

### Co- producing knowledge through spirals of actions in mini-cycles

Guided by the CrHeKCoP-model, our purpose in the mini-cycles 7-10 was to co-produce participatory knowledge related to the promoting and hindering factors when drawing on the totality of data gathered in the MEDCED-project. Each session started by revisiting the

research questions and the actionable hypothesis for the knowledge co-production (chap 1); these were written on a poster that we displayed centrally in the rooms we used. A comprehensive account of the methods we used, the allocated time related to the stages in the CrHeKCoP-model and the resulting types of data material is presented in appendix 6.

In the following description of the processes and knowledge that arose during the creative mini-cycles, I have deliberately chosen to provide examples from the plurality of intakes to our participatory co-production of knowledge. Thus, the presentation content is reversed from the style chosen for Action Cycle One. Hence, my summarised accounts and analyses are presented in appendices, while examples from the variety of methods we used in the creative mini-cycles are presented in the main chapter. Likewise, I have made space for polyvocality and intentionally used photographs, creative images and a plurality of text types and abstraction levels.

From mini-cycle 7, I share two individual and one collective image, and a translated summary of the narratives the facilitators told to explain their images (stage one and four in the CrHeKCoP-model). The facilitators and researchers' shared image, together with an excerpt from the transcribed dialogue when we summarised our current understanding is described from mini-cycle 8 (CrHeKCoP-model, stage four). In mini-cycle 9, Professor McCormack facilitated the activities when we should map our collective understanding to the elements in the PARIHS framework. In connection to this session, in addition to a brief overview of the method and photographs of our work, I present quotes from two facilitators who entered into the creative activities with opposite feelings; one just loving it, and the other dreading it. Finally, in mini-cycle 10, I summarise our co-produced knowledge linked to the sub-elements in the PARIHS framework.

### Mini-cycle 7; creating a shared knowledge between the facilitators

This mini- cycle was held three months after the intervention had finished. In the pursuit of shared answers between all, and to certify authentic participation, I decided to do the initial



Dealve Hernomatic Knowledge Co Production Cyclin-codel

CrHeKCoP process in two rounds. This way I could be sure that neither the postdocs, nor I, influenced them unduly. My role was to facilitate the process, and organise lunch with help from Eva Marie and Stine. As the facilitators had mixed feelings about using creative methods, I also took the opportunity to invite them to test whether the CrHeKCoP-model could be helpful to coproduce knowledge linked to our research questions. Apart from having introduced Evoke cards at the opening of mini- cycle four and five, we had only used traditional approaches in the FGs and workshops. When I at a meeting one month beforehand presented the idea of adding creativity to the remaining knowledge production, only one of the facilitators (Ass prof Fd) was immediately in favour saying that she far too often missed the opportunity to use

creativity in her ordinary work. She also said that she believed in the potential of creativity to express what she called her more 'holistic and embodied experiences'. Two of the eight (Fb & Fg) said very clearly that 'they hated these sort of activities', but they agreed to try for 'my sake since it had to do with my PhD'. The others were reluctant and said they felt slightly uneasy, but at the same time they were looking forward to experience 'what this would be like'. They related their sentiments to the first time they



were introduced to the Evoke cards; they had been sceptical, but after having experienced how this brought other elements to mind than the traditional approaches, they had begun to appreciate the practice.

To make the session less challenging, in addition to paint, crayons and feathers, I offered the possibility to cut pictures from magazines and use 'picture- stickers' (hearts, cats, dogs, etc). Most of the facilitators used pictures and stickers; Fb who 'hates this sort of activity', made her entire image of cuttings from magazines, and added cats, dogs and other stickers to illustrate her point (p.176). However, while waiting for the others to finish, she painted a blue sky and a sun at the top. It was only Fd who 'loved to finally be allowed to use my creativity' who painted and drew her main work. In addition, she decided to make a cut- and paste picture when she had finished her first image (p.175).

# Summary of the facilitators' stories when describing their images from the Creative Knowledge Coconstruction the 20th June -13

As illustrated in the CrHeKCoP-model, the facilitators started individually to create an image to express the essence of their current understanding related to the



research questions, and thereafter alternated in pairs to explain and verbatim transcribe their partner's narrative. I have summarised and translated their stories, and the facilitators and my co-moderators have audited and accepted them for publishing. Unfortunately, two facilitators were missing due to illness and birth; however their team partners were present.

Despite variation in visual expression, the narratives portray a high degree of similarity in terms of themes and content. All facilitators underlined how the different contexts had influenced the way they facilitated. When summarising their stories, I could clearly identify the findings from the analyses of FG 4. However, the details of the dissimilarities they experienced in the NH contexts were expressed more explicitly, and in particular how the leader's way of participating in the coaching activities had influenced the facilitators' experience of meeting 'three very different nursing homes'.

From this mini-cycle, I have chosen to present the two images and narratives that represent the extreme ends of creative expressions, one with only drawing and paint, and the other made of magazine clippings and stickers. The remaining four images and stories are presented in appendix 14.

**Fd** (partner with Fc): says she has been thinking of prohibiting and promoting factors according to the three categories of PARIHS, and created three circles accordingly;

<u>Leadership:</u> She has illustrated three different roles corresponding to the three NHs they coached:



In the first home (right red circle); in order for change to happen the leader needs to participate in the seminar and coaching together with her team. The leader is depicted inside the red circle together with her staff, but she is placed outside the inner circle of people holding hands. This is to illustrate that the leader demonstrated clarity in her role and was knowledgeable of the patient they were

discussing, and she understood the situation for staff in the ward. She took also the responsibility to follow up decisions made between the monthly coaching sessions

In the second home (left red circle); the leader is standing outside the red circle; she might be present at the coaching, but she did not take part in the process that happened within the circle. Nothing happened between the sessions in this home.

In the third home (middle red circle); the leader is together with her staff in the coaching sessions, but she does not take the responsibility for follow up between sessions. The potential is present here, but they have not come as far as the first home where the leader participated and ensured that agreed decisions and measures were translated and practiced between the coaching sessions.

In the extra image where she used cut & paste, she used two symbols; flowers and an apple to symbolize 'knowledge based flourishing';

<u>Culture:</u> <u>Promoting factors;</u> openness to learn /change, acknowledging each other, being in a process, humour, able to 'work on input' from outside, working as a team

<u>Culture:</u> <u>Prohibiting factors;</u> 'private practices' – everyone, or a click of two or three persons stuck to what they found appropriate. Some persons in this environment may want to learn/

change, but they are too few to 'pull' the others. There may also be the presence of informal leaders not visible for the facilitators - this is illustrated by some persons being eaten by a shark.

Role and attributes of facilitators; we need a big heart and head, but also humour and the ability to see the diverse persons & personalities being



present. She has drawn different symbols to illustrate important features of the facilitation role:

- Big head & big heart
- Big ears → able to listen, but also stimulate so that dialogues/two-way communication can occur
- Big eyes → 'see' each of the participants and their particular value for the team as a whole
- Big mouth  $\rightarrow$  because they need to be explicit and also have/use humour

Results/ outcomes: here she used a champagne bottle to illustrate some 'champagne moments' happening when collectively decided measures have resulted in patients being heard. Consequently, the situation has changed so that restraint can be omitted; thus, dignity for both patient and staff has been experienced, and the 'champagne story' reported and shared with the facilitators at the next coaching session.

**Fb** (partner with Fa): she made her entire image using cut & paste symbols because she "...hates to paint".

Overall she draws attention to person-centred practice illustrated with a beautiful sunset – reminding us of good moments for patients in the end phase of their lives: blue sky; the colours are never as beautiful as when the sun sets. This sky reminds us also of the good moments she experienced as a facilitator.



Then she has commented on different elements in the intervention;

The model/facilitators: need both head & heart, but she underlines the importance of the heart. Says she is impressed with the engagement and willingness to care for patients living with dementia. However, they also need to be knowledgeable.

<u>Leadership:</u> important to be participating rather than only a guest visiting the coaching sessions from time to time; she needs to be one of the team.

<u>Facilitators:</u> she came with a big heart and wished to find some people 'flying high'; this is illustrated by a helicopter in the left hand corner. She sees her facilitation task as more than only a job; like something that adds meaning to life. Sometimes she felt despair and sometimes depressed, but she had also good experiences feeling like 'a fish in the water' (pictured) and at other times like a 'shark' (pictured). She underscores the importance of analysing and understanding the culture in the particular NHs to be able to apply the appropriate tools correctly and bespoke them to specific situations (variety of tools on the wall).

<u>Culture</u>: varied between the NHs, and also according to the individuals taking part in the particular sessions. She has illustrated this with a dinner table and placed different stickers of cats, dogs and cartoon characters illustrating the different individuals constituting the team and culture they met in the NHs. They have met a range of different individuals, from the 'eager to learn' (cartoon figures leaning over a treasure chest), via the 'neutrals' taking part in

what has been decided (a laid-back dog), as well as people 'appreciating working in teams' and the 'very sceptical' wondering if this education and coaching has anything to offer at all (a cartoon figure using his binoculars to search for the 'golden points').

<u>Situations brought for coaching</u>; mainly related to '...a washing and having the job done' – oriented



culture. Need to wash, need to eat or move, and the patient saying no!

Thus, she concludes the main value to be REVELATIONS (written in big capitals in the middle of the picture) related to a person-centred understanding of their care, and backed by the facilitators' contesting their 'task oriented explanations that ruled their everyday practice by asking person—centred questions; both from the patient and relatives' perspective, and also health- and treatment related questions connected to the individual patient's situation which was focused on in the coaching. She concludes that this can be quite easily done, and thus result in small moments of happiness for the patients and the carers' everyday life (illustrated with red hearts).

### Synthesising agreement to set of key themes

After working individually and in pairs, the facilitators used the whiteboard to create factors of meaning based on the elements they had discovered and thereafter collectively discussed in plenary when they shared their individual narratives.

They started out trying to map the PARIHS elements, but found that this restricted their creativity at this stage. Instead they aimed to cluster factors of meaning into keywords. In the final stage they agreed to eleven keywords that they decided to use as a basis for their collective creation at the end of mini-cycle 7. During the round when they all should summarise their individual understanding of their collective image (fig yy), Fg realised that 'competence' was missing and they agreed to add this as a twelfth key-word.

The translated key words are (from upper left and downwards):



Curiosity; Relationship, Diversity:
Competence; Respect, Reflection;
Be seen and heard; Humour;
Clarity –proximity; Leadership;

Loyalty; The package

Concluding mini-cycle 7, the facilitators commented on the

collective image one by one. Overall they were satisfied with the process, the creative approaches, the way they had collaborated and their collective results, as can be seen in the quotes below from two of the facilitators. Due to the strong message across the participants of collective ownership of the analysing results, and knowing that I had had no influence on their result other than facilitating the day and deciding on the creative approach, I was happy when the facilitators agreed and looked forward to using the CrHeKCoP—model for the proceeding mini-cycles. The whole passage when the facilitators commented on the image is translated in to English, so that both supervisors could validate my analyses. Parts of the starting and ending paragraphs are presented below.

### Fb started the round and said:

....ok, what I see is that we have de-constructed the three main PARIHS categories — 'the leadership', 'culture' and 'evaluation' concepts, and found different words to describe these. So I think this has been quite good. (...) I really like the words that we have found and agreed to, and I feel that these also cover much of what we discussed and talked about during this session related to our experiences.

### And Fg concluded by saying:

...well, a lot of wise things have already been said and that's what I find characterises the whole group, if I should dare to talk on behalf of our teams. We see that today that when we are going to work together to find solutions; then we all have a wealth of experiences. And when we are talking about this, we may use different words to express the content, but when coming to the core of our experiences, we have

experienced and reflected more or less on the same elements. Then, of course, we can always discuss what concepts to use and how to categorize them. However, in my view, that's more of a technical case...

## Mini-cycle 8; creating a shared knowledge between facilitators and researchers



The next stage towards a common understanding started by Stine, Eva Marie and me drawing images based on our understandings from interviews with NH leaders, the ethnographic field-studies and preliminary data analysis from the qualitative and quantitative MEDCED data, as well as the data that the facilitators had produced. Thereafter, we shared our stories and connected keywords with the whole group of facilitators and

researchers. The programme was followed as planned (attachment 14). As always, time flew and I had to be extremely strict to keep us on track. I used the countdown function on my phone for the activities that I participated in myself.

Regarding the communicative space and the quality of our interaction; from the immediate reflections in my diary I found that everyone had participated with their own ideas and reflections. Some were more active in the process, but as I saw it, this was more related to their personalities in terms of being extrovert or introvert. When I listened to the audiotape and transcripts from the session, I could hear that we built on each other's statements. We also supplied stories from the nursing homes to explain and verify the meaning units during the process of agreeing to the set of factors that we mapped to the PARIHS context elements of 'leadership, culture and evaluation'. The procedure we used and the keywords are described in attachment 14, and the identified factors mapped to PARIHS are presented in the text as box 1.

Our last task for the day (CrHeKCoP-model stage four) was to create a collective image to capture our collective understanding. When I started to find the equipment Fg said she "felt completely empty", and I could very well relate to that feeling myself. However, as compliant and 'clever girls' we did as I had planned, and I felt lucky when Fa and Fd without discussion took the responsibility to head the process.

Inspired by yin-yang thinking, they started to make a picture divided into a 'dark' and a 'brighter' side to represent competing forces in terms of two approaches to collective learning and knowledge utilization in the nursing homes. The idea they started out with, which the rest



of us followed,
was that the
purpose of the
education
intervention was to
frame the darker
sides representing
the prohibiting
factors, and open
up more space for
the enlightenment
that some of our
data suggest
happens, such as;

better teamwork, more openness and respectful attitude towards each other and the patients, better staff communication, increasing person-centred care, and more measures to implement alternatives to using restraint.

In the following pages I have chosen to present a glimpse of our working process when we commented on the image we had made to bring all our identified themes together. Thus, rather than summarizing the process, I let the image and the participants' voices speak for themselves.

### CrHeKCoP 30.09.2013, stage four; bringing all themes back together

....**Fc:** ok, so if we are symbolising the promoting factors here at the dark side, then we are obliged to find something here that they can relate to and recognise. Therefore, there have to be these yellow spots in here with the prohibiting factors because we are going to facilitate so that changes can happen. Therefore, there have to be some yellow rays in here with the prohibiting factors. Then there have to be openings here in the line (at the same time she drew white openings in the line that framed the prohibiting side) so that they can go out from there. And there are many ways to do that, that's how I think. And therefore, I think that the border we have drawn here is too distinct between the promoting and prohibiting factors. If the idea is ....how shall I put this;... if the idea is that it's going to be brighter here, then there has to be more light in here from the start. It is just that they haven't found it yet. But there are some glows here, that's how I think, and we can actually blow fire into these. That's how I see it.

**Fd & Fa:** No, no! **Fa:** because there is light here (4.27) **Fc:** oh, is that so?

**Fa:** Yes it is, but then again there is something in this context that prohibits, and thus it is up to the people being in this context if they will allow it to grow or not. Or if they will allow the promoting things to grow; because they are either in this context, or that!

**Fd:** As I see all this, there is not one context that promotes and one that does not. All this is present in the meetings we had in the nursing homes. We meet those who are seeing the possibilities, but at the same time there exist prohibiting factors in the environment, in the leadership and all these things. So therefore, we have to consider how we might limit the prohibiting factors, and how we can make these things grow by creating a consciousness about the things that hamper. Being conscious of these, and consequently, sometimes these lines will perhaps vanish. But the image symbolises the duality that we have tried to illustrate.

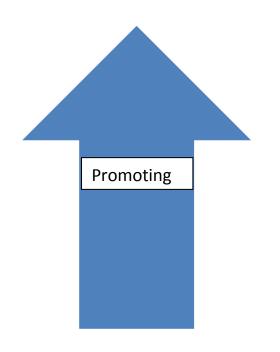
(...) At the end of this sequence of commenting on our collective image, Fg reflected;

**Fg:** ...yes, I follow the things that have been said so far. I am standing here thinking that, if I am only looking at the image we have made, then it resonates with what I too have thought; the complexity. We spend a long time trying to analyse, and group, and categorise all the things we see. We have experienced this also today when we are talking through these things. There are a lot of elements occurring; the ideas, the thoughts of the things that may influence in a promoting or inhibiting way, and for me it is getting increasingly obvious that we know that there is a complexity in the things we are engaged in. (8.35) Actually, for me this is becoming clearer and clearer in the process when we are working with this. And then we just have to try simplifying so that we can be able to make some inferences out of this. We can't let the complexity overwhelm us but trying to make some inferences or conclusions out of this. Thus, for me this became a very good image of just that!

....unison laughter .....

Fg: yes, but you know in a way, we made this in a sort of chaos because we thought differently from the outset, but despite that we managed to find something common/shared from it, and that is for me, well, this became that sort of image for me.

### CrHeKCoP 30.09.2013; identified factors mapped to PARIHS 'leadership'



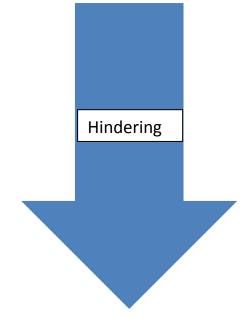
'Creates supportive framework conditions' (rammebetingelser)

'Pull/ leads the process within the nursing home'

'Having a person-centered focus for the learning- and skills development'

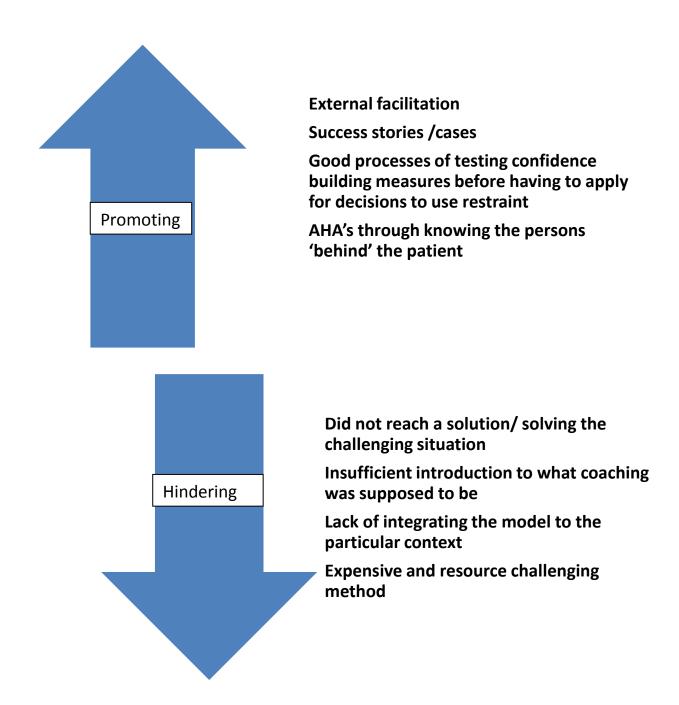
'Taking part, but not being dominating' (in the staff's learning activities)

'Personal skills' - Humour

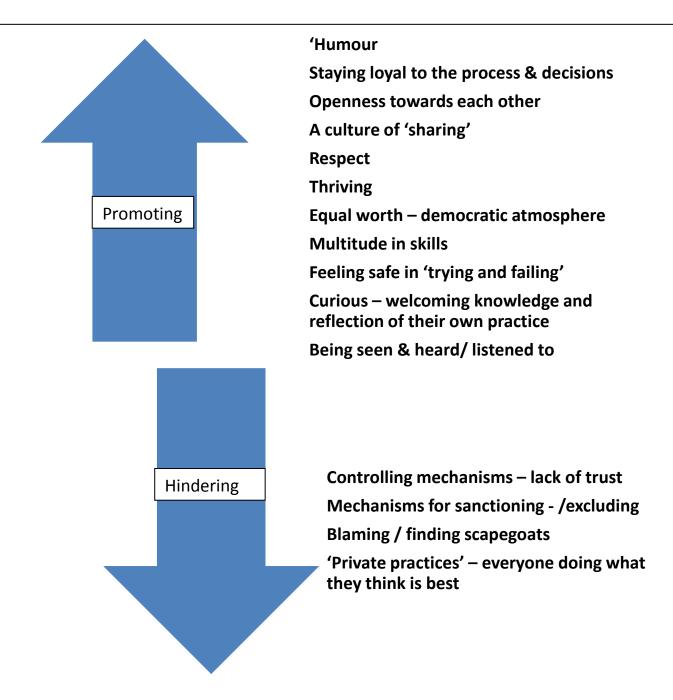


Leading from a distance/being 'distant'
'Managing instead of leading'
Lack of leadership continuity

### CrHeKCoP 30.09.2013; identified factors mapped to PARIHS 'Evidence'



### CrHeKCoP 30.09.2013; identified factors mapped to PARIHS 'culture'



## Mini-cycle 9; knowledge co-production of promoting and hindering factors in the NHs understood from the perspective of PARIHS



Luckily, Professor Brendan McCormack had agreed to facilitate the ninth mini-cycle when we should discuss whether our findings in the preceding mini-cycles confirmed, contested or added additional insight to the PARIHS framework. As one of the creators of the framework Prof McCormack not only helped us to ensure and validate that we built on a correct interpretation

of the framework. He also introduced a new way of using Evoke cards that brought our knowledge construction and understanding to a higher level. Unfortunately, several participants were missing due to their participation in organising a national fund-raising for dementia research<sup>13</sup> (n=2), and illness (n=4), meaning that we were only two researchers (EM & TE) and two facilitators (Fd& Fg) present. However, since this was the third creative session, and both the prior FG and CrHeKCoP sessions had ended with consensus, we decided that we should proceed as planned, and share our experiences with the absentees via audiotape and photographs of our work. The transcripts and photos would then be the starting point when we all met for the final analysing session in mini-cycle 10.

The Evoke card session followed a sequence where we had shown the images and told the stories from mini-cycles 7 and 8, as we now interpreted and understood them. Prof McCormack had asked reflective questions related to our individual stories, and we continued to reflect collectively in a plenary session 'around the table'. This discursive reflection made the backdrop to the card creating story.

#### The card creating story

Prof McCormack gave instructions to pick cards that attracted us, without thinking of the meaning. When we were ready and had picked a heap of 10 cards each, he said that the reason for this was that we should create a collective story and try to match up our cards by building on each other's cards. Once one had started to display her card and explained the meaning in relation to the research questions, the others should use the prior cards as metaphors as we cumulated and collected meanings to them. We were also encouraged to shift from the idea that had made us take the card in the first place. Thus, when one person started saying that she had chosen this card because of this and that, the next person continued by saying that actually this connects to my card here, and then explained the reason why.

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<sup>&</sup>lt;sup>13</sup> "TV – aksjonen til inntekt for demens"

This reason might not be the same as the one that made us pick the card in the first place. The rationale for this was that when we have our own analyses and we put them into the context of somebody else's, our preliminary analysis shifts. Hence, we have to be open to allowing that to happen, and realise



that our individual story and interpretation will always shift in the context of the others people's stories. This is what we aimed for in making a collective story; a story we tried to tell by using the Evoke cards as metaphors.

As facilitator Prof McCormack only intervened when he thought we needed it to get the process going, and we were encouraged 'to let the flow go' because the importance was the results that would come out of our individual stories when we connected them to the previous cards and stories. In the last part of the workshop, we wrote notes of meaning units that could be adequate for the cards on the table. These themes were then mapped to the elements of PARIHS; when summarizing we found that confirming, contesting and additional perspectives emerged.

It was fascinating to experience, and visually realise, and feel, how new insight arose during the process. I was happy that I in this mini-cycle could fully concentrate on being in the knowledge co-production process, and not simultaneously having to facilitate and organise. Consequently, I enjoyed every part of the day. Eva Marie, however, clearly stated in the beginning that she did not particularly like creative processes. Nevertheless, in her concluding

reflections of this mini-cycle, she said that she appreciated having been

'forced into things I don't like (...) but I am thinking that the more reluctant you are, the more you probably need it because that's when you are switching into other parts of thinking. So actually I am quite happy having been forced a little'.



The two facilitators likewise appraised the experience, even though their initial motivation to engage in creativity differed. The following excerpts are derived from narratives which Fd and Fg presented when some of us headed a workshop to discuss the potential of using creativity and art based approaches in PAR at an international action research conference (CARN 2013).



### Fd and Fg's reflections on their participatory and creative journeys

When they were invited to take part in creative and participatory analysing actions, their different reaction can be seen as an endpoint in a continuum from less to more enthusiastic. Fg's reactions represent the group majority, while Fd stood out when she immediately expressed enthusiasm to the idea.

Fg: Basically, I'm not particularly fond of these type of activities because I am challenged in areas I feel are not my strongest parts. Both having to express myself creatively – and freely, and also being challenged to abstract and categorise. In addition, having to express it all by using images and colours, and finding the concepts that capture my experiences. However, by deciding to take it seriously, and



engage, I felt that it gradually loosened up. I managed to free myself from "the performance"; my wanting the image to be nicely and cleverly done, and instead concentrate on finding images or pictures of what I thought were important data / reflections. I think it worked and it took my own process a step further.

When Fd described her position towards creativity, she exemplified by referring to our experiences from the card session with Prof McCormack.

**Fd:** I am essentially a creative person, and I found it a relief to finally be allowed to flourish; to let my imagination, associations and creativity be allowed to come forward. Not having to think about how to express myself in a timely and scholarly manner, but rather be allowed to be in the "flow"; to let the experiences from the

seminars, coaching sessions and reflections that sit in my head, my body and my emotions to come forward. A larger part of you is being involved in the creative process, and there is a risk of important information not coming through if one has to



strive to think about what to say. For me this may be illustrated by the process we experienced in step 10 using the Evoke cards to build our common knowledge

I let Fd continue, as her explanation represents how the four of us that had participated in the mini-cycle with Prof McCormack reflected at the end of the session.

**Fd:** .....When the story developed, we experienced that the knowledge which at first might seem like two wings of promoting and inhibiting factors, during this process were actually stitched together. A link was developed between these opposing fronts resulting in us seeing more of the complexity in the contexts, and it became clear that there is not an either/ or in one setting. Part of the clue was to move the factors that inhibited towards those who promoted change / learning. For example, that it may be possible for people who may seem "disengaged", "not contributing" or "unmotivated", to actually get moving towards engagement. One example emerged from a nursing home where the facilitators had introduced 'rounds around the table' to invite everyone to share their views of the patient's situation. This way, the persons who always used to talk were silenced and consequently, space was given for all the participants to talk. In one nursing home it turned out that one of the assistants – a cleaner, who beforehand had not voiced a word during the coaching sessions, said the reason for not participating was that she did not feel important enough. However, it turned out that she revealed important information about the patient that the rest of the staff did not know.

## Mini-cycle 10; concluding knowledge co-production of promoting and hindering factors in the NHs understood from the perspective of PARIHS



Tone Elin) met for the last and final mini- session in a

Seven facilitators (one was ill) and two researchers (Stine and

conference hotel in June 2014, seven months after the session that Prof McCormack had facilitated. In the meantime, we had increased our reflections and analyses of the data in several ways. The facilitators had finished teaching and coaching in the 12 NHs in the control group; each team had now facilitated six

seminars and 36 coaching sessions. Eva Marie and Stine had finished the field studies, and we had met and discussed the total findings and preliminary analysis with leaders and participants

in three out of four counties. Six of us had prepared and presented experiences and preliminary results at an international Action Research Conference (CARN 2013), and we had begun to write up findings from the trial and ethnographic data. Thus, when I sent the programme for mini-cycle 10, I emphasized that although we should revisit and agree on our



previous agreed factors and meaning units related to the research questions, our purpose for this final minicycle was to build on the totality of the embodied and cognitive knowledge we now possessed. I also clearly stated that I expected us to have re-read the transcripts and summaries from mini-cycle nine, and I attached the documents and photos as visual reminders in the email. In addition, Fd and Fg agreed to share a resume

of our 'process of coming to know' during the card session with Prof McCormack.

Following the CrHeKCoP-model, we started individually (stage one) to pick two or three Evoke cards that resonated with our overall understanding of how the interaction between the context elements of leadership, culture and evaluation on the one hand, and the facilitation role and attributes on the other, could be understood from the perspective of PARIHS. Thereafter, we shared our reflections in plenary (CrHeKCoP, stage four); as usual, the session was audiotaped and Stine took notes. We concluded the Evoke part by agreeing to a sense of data saturation that confirmed the analyses from Fg 4. However, we were able to express more clearly how the intervention had been influenced by, and reciprocally influenced, the nursing home contexts in a dynamic interplay with the way the facilitation had been performed in the particular nursing homes.

After a short break, Fd and Fg then narrated their experiences from mini-cycle nine, and thereafter explained the factors of meaning units we had created and mapped to the PARIHS elements. The whole group continued to revisit these keywords, and we concluded the discussion with a shared set of factors which we wrote on post-it notes and pasted on wall posters; one for each of the three PARIHS elements (E+C+F), and one additional for 'Outcomes' that had emerged as an additional element from the Card session.



We discussed how to proceed and summarise the knowledge, and the first idea was to structure the discussion along confirming, contesting or additional issues to the PARIHS framework; similar to what we had done in mini-cycle nine. However, as dynamism and reciprocal interaction between the elements had emerged as the most prominent features when understanding the implementation processes in the nursing homes, this division into three categories of contesting, confirming and additional issues was found limiting and unhelpful. Hence, we decided instead to frame the discussion within the dynamism related to each of the PARIHS elements; this way we found that we could address the findings in a similar way to how they were experienced in the nursing homes. Each and every element and sub-element were connected in the nursing homes in a dynamic and fluctuating manner; a manner which could result in both promoting and hindering implementation factors in the same NH at different moments in time.

When facilitating our synthesising and conclusion process, I noted the agreements on flip-overs, Stine wrote summaries and we audio-taped. We started with the dynamism related to 'Evidence'. When we had finished 'Culture' and the additional 'Outcome' category, we had already elaborated several elements of the 'Facilitation' skills and attributes. Hence, I found it more purposeful to reverse to CrHeKCoP- stage one, so that we individually summarised how we now understood the dynamism and interaction related to the role of facilitation. I encouraged us to use crayons and paper, and choose whether we wanted to combine drawing and writing. This time I did not offer magazines to cut from; thus, some opted to use only text<sup>14</sup> or image, while others combined the two styles of expression.

### **Results from the process**

#### Introduction

Overall, our findings support the notions in the PARIHS framework, finding that successful knowledge integration in the nursing homes was a function of a dynamic interplay between the evidence being introduced, the role, skills and attributes of facilitation, and a range of contextual elements within and outside the nursing homes. In addition, by randomising 24 of a total of 83 NHs in Western Norway, we were able to offer more details into how the sub-elements of 'leadership, culture and evaluation' interacted and influenced the facilitation, and consequently the success, failure and mixed results of integrating the MEDCED knowledge in particular contexts. The randomisation secured a representative selection of NHs in Western Norway, with 16 homes in rural areas and 8 city homes. Among the included homes, we

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<sup>&</sup>lt;sup>14</sup> I have translated and/or explained the text in English for my supervisors

found variations to be the most prominent distinguishing feature. Thus, despite the fact that all institutions were defined as nursing homes with the same juridical obligations to offer health and social services to their population, we found that the concept 'nursing home' encompassed a great variation along a range of contextual elements, such as; size, geographical situation and buildings, organisation and management structures, leadership styles and practices, the composition of staffs' skills and experience, as well as the mix of patients' resources and needs. As will be shown in the following summary of findings, and in table 7 where these are mapped to PARIHS; similar to the assumptions in the PARIHS framework, we found that the contextual variations had a central role in the interplay with the facilitation of the MEDCED intervention. However, our data clearly show that the sub-element of 'leadership' in these institutions had a stronger impact than the current description in PARIHS, in which the three context elements of 'leadership, culture and evaluation' are on an equal footing. Our findings also indicate that the individual staff member's skills and motivation are more important for putting the knowledge into action than the framework presently accounts for.

Table 6 Agreed key themes from mini- cycle 10 mapped to PARIHS elements

The overarching idea was the <u>dynamism and the reciprocal interaction between the E+ C+ F elements</u>. This was found to be more helpful in understanding the processes influencing the facilitation and knowledge utilisation in the nursing homes. Thus our findings contest the idea in the PARIHS that may indicate a more stable relationship between context and culture which can be assessed on a continuum from weak to low. Rather our findings showed that the same nursing home could be situated both 'high' and 'low' on the continuum at different moments in time. However, in this interaction some contextual factors/ conditions were found to be more stable and other more open for influence of shifting factors like for instance the mix of patients and staff's skills and attributes.

So perhaps a more helpful distinction than the high – low could be the stable versus shifting conditions/ another more correct term??

FROM PARIHS FRAMEWORK		FROM CRITICAL HERMENEUTIC KNOWLEDGE CO-PRODUCTION			
ELEMENT	SUB-ELEMENT	AGREED KEY THEMES MAPPED TO PARIHS mini-cycle 10			
Evidence	Research/ clinical experience/Pt's experience/ local data/information	<ul> <li>Evidence</li> <li>The dynamism between the E+F?C</li> <li>System to build on, but have expanded the concept of evidence =&gt; in this case is related to evoking their own knowledge</li> <li>The evidence in the process</li> <li>Bi-polar in the team =&gt; the interaction with the environment</li> <li>Cold and deep water can be mastered if given appropriate tools and a learding star</li> <li>Time and space for reflection</li> <li>The 'city ladies' – the experts from town versus 'we have the answers ourself!'</li> <li>Ideals need tools and a firm hand</li> <li>The dynamism between the 'champagne moments' and lack of success</li> <li>similarities and difference</li> </ul>			
Context	Culture/leadership/ evaluation	Context  More stable condition  • A leader as the leading star – the importance of leadership  ➤ on the basis of and because of			
		leaders taking part in staff learning			

		<ul> <li>leaders taking responsibility and communicates (takhøyde) openness / trust / safe space</li> <li>different leader styles – many ways to Rome;</li> <li>dialogue with her staff, and connected to the diversity of people in teams</li> <li>dynamism; well-functioning teams, engagement, motivation</li> <li>orderly structure and framework/institutional conditions</li> <li>physical rooms/ arena for reflection and discussion removed</li> <li>less stable?</li> <li>motivation for change / a change culture =&gt; jump into deep water; both staff and facilitators</li> <li>dynamism between the culture with the motivation and openness to change and the organisational facilitation supporting the change /providing organisational conditions for change</li> <li>mutual trust and safety</li> <li>variation in skills; having or not had continuing ed related to dementia ABC, 4 A, ethical reflection groups etc)</li> <li>patient mix; the level and amount of challenges related to agitation (scratching and spitting)</li> </ul>
Facilitation	Purpose	Facilitation (paste picture)
	Role	Defined in the intervention  ightharpoonup direct and re- direct
		person centred facilitation; humility and authority

	> communication
	> facilitation team of two
	dig in fertile sole/ unknown
	> use different tools
	good examples acting as good learning cases
	tools bespoke /tailored to participants and facilitators
	the relation within the team (kjemi I teamet)
	➤ the 'rounds'
	hostile and negative attitudes can be mirrored and possibly changed
Skills and attributes	➤ facilitators' skills and confidence = > open up for 'new' voices
	> co-operation with the leaders
	> the facilitators skills & attributes in addition to coming from outside/ with an outside
	glance
	► HUMOUR
	professional authority and authenticity
	Flexible in the interaction with the participants; listen, 'feel' the atmosphere, humour
	=> the ability to play on a wide registery
	> skills to 'endure in the situation' (stå I det)
	Faciliators' professional and personal experience
	racinators professional and personal experience
OUTCOMES	Outcomes
	ightharpoonup C+F+SI=E
	➤ A journey – a process going on for 24 hours
	> 'Discovering the belly' – the wise man in the group
	➤ Blooming moments
	Energy created by 'Champagne moments'
	The ethical challenge of enlightening to deficits – frustrations; seeing the light but not
	reaching it
	<ul> <li>Strengthen the work/ see the importance of establishing arenas/ systems for reflection</li> </ul>

### Summing up the findings

As identified in the PARIHS framework, we found that the degree of receptiveness and readiness within the particular nursing home cultures impacted on the likelihood of putting the model into use in daily care for agitated patients. However, unlike the assumptions in the PARIHS framework of relatively stable cultural implementation conditions that can be assessed on a continuum from weak to strong, our findings indicate that the conditions could shift within the same nursing home depending on the team of staff members on duty, as well as the mix of patients and their present physical and psychological situation.

The success or not of the MEDCED intervention was measured in terms of the staff's ability to translate the intervention knowledge into collectively decided confidence building measures, resulting in restraint being avoided or reduced in daily practice. The overall trial findings showed a significant reduction in use of restraint and agitation (Appendix 16: Testad, Mekki et al in press), but not all the institutions succeeded in reducing restraint. From the qualitative data, several episodes were reported when challenging situations were created by the mix of agitated patients relative to the number of carers on duty. In these situations, the nurses were unable to practice the confidence building measures the staff had decided they should use to handle these situations. Rather, they had had to apply 'ad hoc' restraint solutions, despite their knowledge and motivation to act loyally to decisions to apply alternative person-centred or confidence building measures.

Moreover, we found that the individual staff members' skills and attributes acted as stronger promoting or hindering elements for the success of the intervention than presently expressed in the PARIHS framework. In the MEDCED intervention this could be identified in several ways. First, during the coaching sessions, when the facilitators experienced that the individual carer's person-centred and professional knowledge of the patients and their relatives, as well as the individual's creativity and skills in analysing and expressing their reflections, enhanced the facilitator's coaching performance. Hence, more areas and perspectives were opened for the facilitators to pose reflective questions about, and consequently this resulted in more perspectives and possible actions being illuminated. Secondly, the individual's willingness and ability to share their knowledge influenced directly the alternatives to restraint that the team of staff members were able to find, and this again increased the likelihood of successes, or 'Champagne moments'. Finally, like suggested in the PARIHS framework, when the staff experienced that the alternative measurements and concerted team actions resulted in more patient-centred care and less agitated and distressful situations for the patient and their nurses,

the staff believed in the 'evidence' and became more inclined to integrate the TFT- model in their daily practice.

However, while mix of patient and individual staff members resulted in variations that could be observed to change on a daily basis, some contextual elements were found to be more stable, such as nurse –patient ratio, physical structures, where the nursing home was geographically situated, as well as staff stability or turnover, and the leadership role and practice. The majority of the nursing homes in our sample had the same nurse – staff ratio irrespective of the care burden and number of agitated patients living with dementia; or whether the institution was situated in quiet countryside, or beside a busy main road (appendix 16). Nonetheless, our findings clearly demonstrate that such differences impacted on the staff's possibility to agree to, and apply, effective confidence building measures. For instance, 28 of a total of 90 situations that the staff brought forward for coaching (appendix 17) concerned situations related to wandering and agitated patients being denied or restricted to walking freely. While this was a minor problem to tackle for nursing homes situated on a small island or in small rural communities where the patients could easily be tracked by the staff if they did not turn up in due time, or could be followed back by neighbours, the same situation represented a big challenge for nursing homes situated in bigger cities or near busy and dangerous roads. In these places, the patients needed to be accompanied for walks, which was often not possible due to low staff- patient ratio and heavy care burden.

Similar to other studies concluding that the staff skills and competence impact on whether knowledge is put into use or not (Gjerberg et al., 2013, Rokstad et al., 2013b), as well as notions in the PARIHS framework, our findings point to the influence of knowledge. However, it is less clear where the demarcation lines could be drawn as the knowledge impact was also found to be situational. Our quantitative data document that the staff members in 23 of the 24 nursing homes had participated in one or more type of continuing education since the use of restraint was regulated in the Patient Rights Act in 2009. Thus, particularly in the seminars and during the first coaching sessions, the facilitators found that the factual knowledge of dementia, as well as the staff's awareness of the ethical, juridical and practical requirements related to the law, interacted positively with the way the facilitators experienced to mastering their role. Hence, in the beginning of the intervention, the actual knowledge and awareness that the staff possessed linked to the content of MEDCED intervention influenced more than the participants' formal education as registered nurses (RN) or auxiliary nurses. As has been reported elsewhere (Statens Helsetilsyn, 2013), previous engagement in individual

and collective learning related to dementia and person-centred care was found to increase the staff members' engagement and active participation in the MEDCED education intervention. There were also episodes when care assistants without formal health education could provide information that turned out to be important in understanding the situation from the perspective of the patients and their relatives; information which in turn proved essential for the collective staff's endeavour to find alternative and person-centred measurements to avoid use of restraint.

However, particularly related to stage four and five in the decision making model (table 3, chap 3) 'Reflecting on the patient situation and the care staff – resident relation' and 'Problem-solving & choice of intervention/ measures', a difference in favour of RNs could be identified. Thus, in this stage of the decision making process, the RN's proved to possess an ability to analyse and view the complexity of the interacting elements that had to be taken into account before deciding on the chosen measurements to test out. The facilitators offered two explanations for this; firstly, that analysing and critical thinking is a central skill in the nurses' professional education, and secondly, that the nurses due to their education had more concepts and theories to think with, and to use, when they expressed their opinions during the group coaching. In the nursing homes (n=2) where the majority of carers had little formal education, they possessed fewer words and concepts. Consequently, few participants in these homes took an active part in group reflections, and the facilitators felt that it was hard to facilitate participatory processes in these homes; the few nurses and the leader talked, the others sat silent. In these homes some individual staff members could share their reflections either before or after the coaching, but they did not dare to speak in the group unless they were specifically asked. In one of these homes, the facilitation team introduced rounds so that everyone was given the possibility to share their reflections, and this turned out to be a good idea.

In the other home, however, the leader was the only RN among a staff of experienced and senior auxiliary nurses. She advised the facilitators against introducing the rounds because several previous attempts had resulted in more or less a boycott of workplace learning initiatives. As this was one of the homes in the control group, the facilitators were free to deviate from the intervention protocol. Hence, together with the leader they decided to introduce some brief lectures in areas that the staff had identified during coaching that they needed more knowledge. Consequently, the staff and facilitators could collectively engage in the search for possible alternatives to restraint by integrating the staff's practical skills and

person-centred knowledge with the facilitators' and the leader's theoretical understanding. For this home, this turned out to be a success, and according to the leader, it was the first time in her long experience that the staff had been enthusiastic about the continuing education they had been offered at their workplace.

However, there were other examples where foreign born RNs possessed the professional knowledge and skills, but were reluctant to talk in plenary because of language challenges. In these cases, introducing the 'rounds' opened a way for valuable inputs, and also, according to one of the leaders, made her and her care team aware that they had not been sufficiently attentive to the additional perspectives that the foreign nurses could offer.

Thus, when summing up, the facilitators agreed that their participation in refining, preparing and facilitating the MEDCED content and methods had contributed to the trial results showing an overall significant reduction in the use of restraint and agitation (appendix 16). However, the success, failure or mixed results in the particular NHs were influenced by a dynamic interaction between the identified contextual sub- elements of 'leadership, culture and evaluation', and the 'facilitators' skills and attributes' (PARIHS framework) at different stages in the intervention process.

During the coaching sessions, the interplay between the staff's individual and team-based motivation and skills to engage in finding solutions on the one hand, and the facilitator's skills and attributes related to teaching and coaching combined with their expertise in the field of dementia, nursing home care and ethics on the other, were found to influence both the process and the degree of authentic and shared decision making amongst the staff.

However, whether or not the agreed decisions were put into action was determined by a complex and fluctuating interaction between shifting care challenges that had to be calibrated against appropriate contextual structures and resources; the greater the imbalance, the less likelihood for success. On an imaginary left side of the balance, we identified the willingness to stay loyal to the collective decisions, individually and in interaction with expectations and support in the staff culture and from the leader in particular. The possibilities that the organisation created for staff members to act, could be identified as promoting or hindering contextual elements on an imaginary right hand side. Such conditions were shaped by the equations – or not - between the patient mix in terms of complexity and number of residents with aggression challenges, as well as a range of influencing resource elements, such as; staff-

patient ratio, physical environment, geographic situation and the tolerance for aggressive and challenging behaviour.

To this end our findings validate the PARIHS framework underlining that successful interventions are a function of the interaction between the evidence, context and the role, skills and attributes of facilitation. However, as shown in figures 7-9, when summarising our finding of how 'facilitation' interacted with the PARIHS contextual sub- elements in an education intervention in Norwegian Nursing Homes, we found that the 'leadership' element trumped the 'culture' and 'evaluation' elements. Across the facilitation teams, there was a strong agreement that the leader's performance in, and between, the coaching sessions influenced significantly on the facilitation role and process, as well as on the outcomes. Although the leader's performances differed as a response to particular NHs' contextual variations on the organisation and system level, as did the facilitators performance; the degree to which the leader acted as an internal facilitator was identified to be the element that influenced the most.

Whether internal facilitation took place or not, and how, was reported and documented in the reflection notes from each coaching session. The task of being the internal facilitator included activities such as; a) summing up and writing up the measures they agreed to put in place before the next coaching, b) documenting the planned care in the patient's electronic journal, c) confer and discuss suggested medication changes with the doctors and the relatives, d) discuss and seek agreement with the relatives about alternative care plans (for instance as in one of the success-stories, allowing the patient to go for walks on her own even though there was a risk of falling, and even having trouble in finding her way back).

Also, in some homes, the role of the internal facilitator included implementing new routines like placing copies of the care plans to avoid restraint in the patient's room so that both relatives and staff could have easy access, and thus be more likely to adhere to the collective team decisions than continuing their 'private practices' of doing what they individually found most appropriate. In addition, as suggested by Dogherty et al (2012), other team members were found to 'oil' the facilitation process, but this was only identified in the NHs where the leaders actively engaged in the learning processes together with their staff. Either she took the internal facilitation role herself, as in most cases, or she delegated the follow-up tasks to a named person when she was absent.

In one nursing home where the leader gave the responsibility to the whole group using words as 'you' and 'yours' responsibility without including herself, nothing happened from one month to the other. In this particular NH, apart from participating in the seminar and coaching sessions, the leader showed no interest in the education intervention, and it was difficult for the facilitators to co-operate with her to arrange suitable times and places for the monthly coaching. In the beginning some of the staff members had been eager and motivated, but after having experienced that their efforts to bring their colleagues on board did not succeed, there were several indications in the reflection notes that the intervention actually had worsened their situation. They had become disillusioned and increasingly aware of the negative influence of their distant leader. Consequently, their disappointment with the leader increased and they reported to the facilitators at the end of the intervention that they were disillusioned and exhausted by their working situation.

In contrast, with exception from one NH, the leaders had acted as internal facilitators in all the cases where progress and success were reported. As one of leaders said when we asked why she had taken that role:

"...well honestly, if not I am afraid that nothing would have happened. After all I am the only person working day shift five days a week, and therefore I am also the best positioned to ensure that everyone acts according to the plans we have collectively decided in the coaching sessions".

Figures 7 - 9 at the end of this chapter represents an attempt to summarise and illustrate our findings of how the leader influenced the elements and processes in the MEDCED intervention, and in particular how the leader's way of taking part – or not - in her staff's individual and social learning processes influenced directly and indirectly the facilitators' work. In the next chapter I discuss the implications of our finding; theoretically related to the PARIHS framework, and practically, related to knowledge integration activities in the Norwegian Nursing Home sector.

Figure 8 Interaction and interrelation between PARIHS elements of Leadership and Facilitation

### THE LEADERSHIP ROLE

Degree of taking part in the staffs' learning processes, having a patient-centred outcome focus, participating without dominating during coaching sessions, and acting as internal facilitator taking follow-up responsibility for shared decisions of measures between sessions

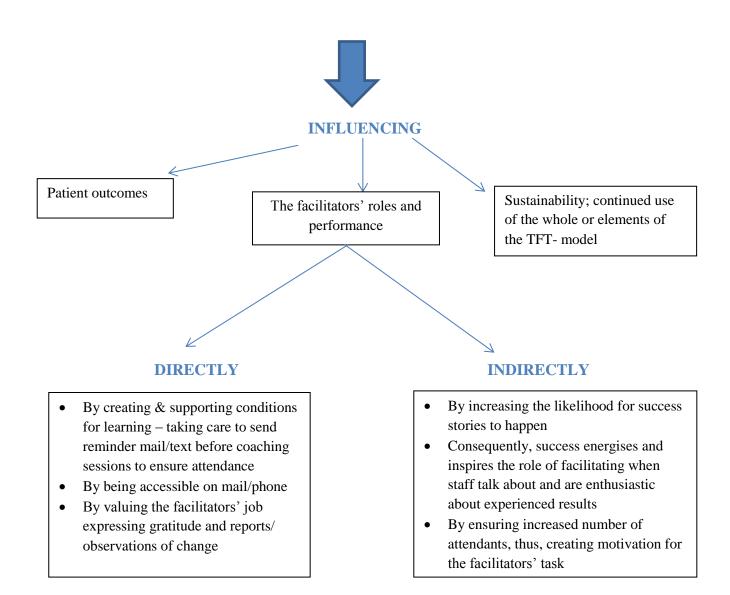
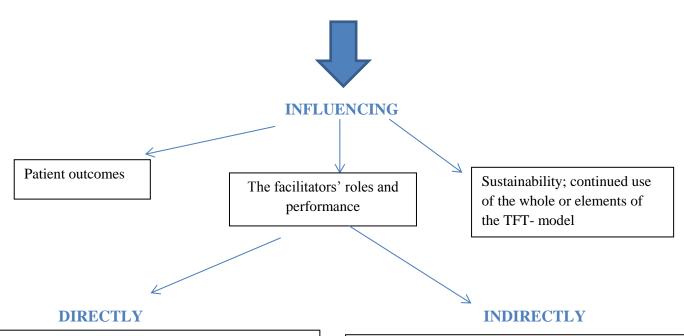


Figure 9 Interaction and interrelation between PARIHS element of Culture and Facilitation

### THE CULTURE; BOTH ON INDIVIDUAL AND TEAM LEVEL

However; the leadership influence is also present here by demonstrating values, setting goals and expectations



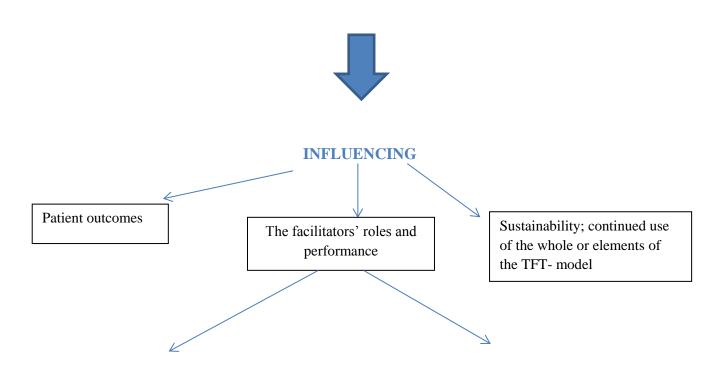
- Readiness for learning & for turning this into changed actions;
- both the willingness and ability to analyse and express reflections in the team as a whole, and the individuals constituting the team
- Democracy & respect allowing all individual staff to be heard, which again influences on the confidence building measurement / solutions the teams are able to find, and consequently, the potential for successful outcomes
- Previous practice and/or arenas for structured professional and/or ethical reflection

- The facilitators sense of being welcomed and feeling at ease
- Positive team culture acknowledging each other, thus producing more creativity and energy to the facilitators' performance
- The facilitators' feelings and experience of mastering the task / feeling successful or not
- The staffs' level of professional and person-centred knowledge the patients, and their creativity in suggesting solutions

Figure 10 Interaction and interrelation between PARIHS elements of Evaluation and Facilitation

### **EVALUATION**;

Feedback and engagement on individual and team level during and between the coaching sessions



### **DIRECTLY**

- The facilitators' perception of staffs' eagerness to ameliorate their practice
- That is, teams wanting to learn new things, use the TFT-model and see the relevance for other patient groups as well
- Consequently, this influences on the way the individual staff members engage and act in and between the coaching sessions, and the way they talk about what they have achieved, or not, since last month

### **INDIRECTLY**

- The willingness/ openness to take on board the TFT- model; "we have no problems and no cases of restraint" / highly competent, thus "nothing new to learn" => less open for external influence and reflection, and consequently, resulting in less engagement in and between coaching sessions
- The degree of engagement and notions that the facilitators should provide solutions rather than stimulate the staff's reflections to find shared decisions within their care team

### 7. Theoretical and practical implications of the MEDCED findings

### Introduction

So what? The thesis and the MEDCED research are coming to an end. When engaging in Action Research we have to reflect on how, and in what way, our results may contribute to the greater good of people in our field of interest. In this chapter I will do so by first discussing the theoretical implications of our findings linked to recent development in implementation research. Then I address identified gaps in the evidence of how the PARIHS framework can prove useful to guide implementation in nursing and health systems. The value of the PARIHS framework for the MEDCED intervention is acknowledged. However, some refinements are proposed, based on what the findings suggest may increase the framework utility for prospective design, development and research of implementation activities. The most prominent is, according to our PAR- analyses, that further development of the framework should address three features. First, that the notion of the dynamic and multifaceted 'function' between the sub- elements of 'evidence + context + facilitation should be highlighted at the expense of further conceptualisation of the elements. Secondly, that more elaboration is warranted from the communicative aspect of facilitation to integrate knowledge into practice; a practice that need to be understood within the whole health system that surrounds the direct patient care. Thirdly, that individuals' skills and motivation needs to be included as a fourth sub-element in the PARIHS framework because individuals have been found to influence more the process of putting knowledge into action than is currently conceptualised.

Thereafter, I reflect on the finding's practical implications for evidence informed knowledge integration and practice development in the Norwegian Municipal health sector. I conclude that the collaboration structure between the Centres for Care Research, the Centres for Development of Institutional and Home Based Care, and the University Colleges is a promising structure for continuous and sustainable workplace learning. However, our results confirm previous research stating that political and administrative stakeholders in the municipalities should be included to increase the likelihood of integrating and transforming the evidence informed knowledge into

person-centred and good quality care. The findings correspondingly show that the clinical leaders must play a prominent role to set the agenda for the collaboration of knowledge providers and stakeholders. More significantly, the data also indicates that the leaders need to participate as internal facilitators, and provide workplace qualities that enable their staff to engage in learning activities, as well as in putting the evidence into action in their workplaces. Consequently, the chapter ends by outlining the plans for a new participatory action research project in which the insights from the MEDCED project will be incorporated.

### Recent development in implementation research

The field of implementation within nursing and health has developed from being informed by linear models of 'pushing out' evidence based knowledge, via 'pulling' in various forms of relationship models of knowledge translation and exchange, and up till today's growing understanding of 'knowledge integration' as a multifaceted and dynamic process across several organisational levels (Berta et al., 2010b, Ward et al., 2012, Best et al., 2008). Accordingly, in a system model approach, the knowledge cycle is understood as embedded within the priorities, cultures and contexts of the local settings. Similar to how Best and colleagues (2008) have defined knowledge integration as 'the effective incorporation of knowledge into decisions, practices and policies of organizations and systems' (Best et al., 2008), the potential for success by such approaches has been empirically evidenced in recent case and framework studies (Berta et al., 2010a, Kagan et al., 2010, Martiniuk et al., 2011b, McKay et al., 2009a, Wilson et al., 2010). Hence, a system approach to knowledge integration emphasises that all elements in the implementation processes should be considered, such as policy makers and funding, the role of organisational and clinical leaders, the strengths and expectations of various partners, timeliness, organisational readiness, as well as decision-making and incentives for change. These 'third generation models' are clearly distinct from earlier generation models that mainly targeted pushing and pulling activities towards the individuals and/or team members who were responsible for putting the knowledge into action in daily practice. Within a system model approach, the degree of knowledge use is conceptualised as a function of effective integration

within the organisation (s) and its systems in a manner that the stakeholders have ensured is timely and relevant to their needs and resources (Best et al., 2008).

The review of the KTE literature presented in chapter 2 indicates the greatest potential for success with models that unite stakeholders and knowledge providers from the outset; from defining the areas where evidence informed knowledge integration and research is needed, through the whole process up to evaluation of the effectiveness and sustainability, and finally, when attempting to influence future policy making. Hence, communication emerges as the central strategy to provide the glue to connect people and organisations within a system that can share common goals (Best et al., 2008). Communication was also indicated as a central skill for knowledge brokers during the lifetime of implementation processes; when problem definitions and goals needed to be renegotiated among different stakeholders as a response to the dynamic and fluctuating nature of knowledge exchange activities in complex health systems (Ward et al., 2012).

To this effect, it is not surprising that action research approaches and realist evaluation were found promising (Munten et al., 2010b, Campbell, 2010, Martiniuk et al., 2011a, McKay et al., 2009b, Berta et al., 2010b), while meta-analysis and systematic reviews have failed in providing solid evidence to guide implementation activities (Murthy et al., 2012, Giguère et al., 2012, Flodgren et al., 2011a, Flodgren et al., 2011b). The reason for the insufficient results from RCTs and single approach designs are argued to be that the methods are 'both impractical and inappropriate' to study situations 'where interaction and adaption is a desirable feature over isolation' Best et al (2008:332). In contrast, the review findings suggest two promising strategies to address systematically the function of all the parts in a system that interact in knowledge integration activities; firstly, the role of knowledge brokers, and secondly, to deliberately build and maintain a reciprocal and longstanding relationships between researchers and professionals (Best et al., 2008, Martiniuk et al., 2011b, Wilson et al., 2010, Ward et al., 2012, McKay et al., 2009a). The advantages are connected to the ability of including naturalistic processes of reflexivity and discrimination in the KTE activities, as well as to react flexibly and creatively to the organisations dynamic and shifting capacity of integrating and putting the knowledge into action in their local systems.

The review of recent KTE literature (Chap. 2) revealed that the Canadian Institute of Health Research's (CIHR) definition of knowledge translation and exchange was increasingly used in implementation studies. This definition concurs with the understanding embedded in the third generation system models. I find the similarities between the purpose of action research as proposed by Reason and Bradbury (Reason and Bradbury, 2011), and the CIHR definition interesting:

### CIHR:

'Knowledge translation is a dynamic and iterative process that includes the synthesis, dissemination, exchange and ethically sound application of knowledge to improve the health of (Canadians), provide more effective health services and products and strengthen the healthcare system. This process takes place within a complex system of interactions between researchers and knowledge users which may vary in intensity, complexity and level of engagement depending on the nature of the particular knowledge user' (http://www.cihr-irsc.gc.ca/e/29418.html).

### Reason & Bradbury:

'...action research is a participatory, democratic process concerned with developing practical knowledge in the pursuit of worthwhile human purposes, grounded in a participatory worldview which we believe is emerging at this historical moment. It seeks to bring together action and reflection, theory and practice, in participation with others, in the pursuit of practical solutions to issues of pressing concerns to people, and more generally the flourishing of individual persons and their communities' (Reason & Bradbury, 2011: p.1).

Both definitions pertain that the ultimate goal is an ethical sound and worthwhile situation for people involved; at the individual and the society level. Further, that strategy to achieve the goal should build on participatory interaction with stakeholders, and take place within well-functioning systems that apply knowledge and reflection to systematically and critically solve practical problems. Naturally, the CIHR definition is specifically directed towards health systems and particular stakeholders, while the action research definition covers the whole spectre of community life. However, I find that they share the underlying assumption that some sort of collaborative and reciprocal interaction is needed between particular stakeholders and elements in the local systems if the knowledge is going to be put into practice in a timely, sustainable and desirable manner for the people involved; and to the best of the greater systems or society.

Similar assumptions can be found in two of the most utilised frameworks for implementation activities in nursing and health services; the PARIHS and the Knowledge- To- Action (KTA). Unsurprisingly then, many researchers and practitioners have found the PARIHS framework as a useful and practical heuristic to frame nursing and health implementation activities (Kitson et al., 2008, Helfrich et al., 2010, Pentland et al., 2011, Perry et al., 2011). Within PARIHS, implementation activities are assumed as a function of a dynamic and multifaceted interplay between factors related to evidence, context and facilitation. The action component is embedded in the notion that successful implementation implies that the evidence informed knowledge is actively adapted to context specific characteristics within the targeted nursing or health systems. To this effect, the co-operation with a skilled facilitator is proposed to promote the process of putting the evidence into practice. However, numerous areas have been identified for further development and testing.

Several researchers have concluded that the guiding utility of the framework would be strengthened by more clarity into how the elements of 'evidence, context and facilitation' interrelate and interact in implementation processes. The same applies to the specific methods that allow the elements to interact across organisational layers in complex health settings. In addition, the utility should be tested in a wider international setting (Helfrich et al., 2010, Pentland et al., 2011).

The originators (Kitson et al., 2008) have suggested that the framework should be further developed as a 'two-stage diagnostic and evaluative approach, where the intervention is shaped and moulded by the information gathered about the specific situation and from participating stakeholders' (Op cit:2). They have indicated their commitment to update the concept analyses of evidence, context, and facilitation (Rycroft-Malone 2010: 131), and they concur with recent reviews that point to the need of testing for prospective use. Special attention should be paid to identify the interaction and the relative interrelation between elements. Further refinement and testing of definitions and concepts should incorporate multiple epistemological and ontological perspectives (Kitson et al 2008). In the MEDCED- study we have tested the prospective utility in an international context, as the first in Scandinavia. To our knowledge it is also the first study where the framework has been used systematically to frame the design

and continuous evaluation of the knowledge utilisation process in nursing homes.

Unfortunately, the costs related to the RCT part of the study design prohibited testing of the suggested two-stage diagnostic and evaluative approach (op.cit).

#### What can the MEDCED data add?

Overall, when used prospectively in the MEDCED intervention, we found that the PARIHS framework was useful in several ways. As described in Action Cycle One, firstly, by highlighting the elements that we needed to account for when designing the intervention. Secondly, to structure the participatory actions in the pre-intervention phase when we refined the pilot intervention's content and methods, and prepared for standardised facilitation in the nursing homes. Thirdly, the sub-elements worked well to theoretically frame the directed content analysis (Hsieh and Shannon, 2005) of the actionable hypothesis in the pre-intervention phase. Fourthly, the framework's theoretical assumptions and the context sub-elements created a shared and purposeful frame of reference for the parallel observations that the facilitators made in their dual role as action researchers. In Action Cycle Two, I have described that the PARIHS framework worked well as a theoretical frame for the hermeneutic stages of de- and reconstruction in the CrHeKCoP-model. In total PARIHS acted as a suitable guide to organise our final stage of the collective knowledge production. Our findings thus confirm propositions that the PARIHS framework is useful for implementation of evidence informed knowledge into nursing practice, as well as to frame research of implementation activities (Rycroft- Malone, 2010, Kitson et al., 2008).

Moreover, the study confirms that the framework could be used in a mixed method study which was conducted within a participatory and critical creativity paradigm. We found PARIHS well suited for prospective use in an international non-English speaking Nursing Home setting. Thus, the findings allude to identified gaps in evidence of the framework's utility for international research purposes (Pentland et al., 2011, Helfrich et al., 2010), and when framed within multiple epistemological and ontological perspectives (Kitson et al., 2008).

#### **Confirming findings**

Similar to previous studies, our findings validate that the framework has high face validity for knowledge integration activities in nursing practice. In mini-cycle 4, when

we collectively adapted the framework to our context, we found the elements and subelements recognisable and easy to translate to Scandinavian non- English speaking
settings. When I used the framework in directed content analysis (Hsieh and Shannon,
2005) of the qualitative data, I only identified two additional categories; 'inclusion as
real researchers' from the pre-intervention data in Action Cycle One, and 'outcome'
from the data set post-intervention in Action Cycle Two. However, these categories
were more connected to the type of intervention we made, and not the knowledge
utilisation process as such. Rather, our findings suggest that the PARIHS framework is
valuable in a Norwegian nursing home setting, similar to findings from Australian
residential care (Perry et al., 2011). Based on substantial facilitation experience across
our research team, we strongly anticipate that the face validity of the PARIHS
framework will be high in a broader field of Norwegian nursing and health institutions
as well.

Our findings further confirm the value of facilitated action to promote the uptake of evidence informed knowledge as demonstrated in other studies (Berta et al., 2010a, Ward et al., 2012). Our findings add details to how the skills and attributes of facilitation interacted with, and reciprocally influenced, contextual elements in the specific workplaces. As described in Action Cycle Two (Chap. 6), this interaction was found to spur circles of both promoting and inhibiting implementation factors. The MEDCED findings allude to recent identification of facilitation as both a predefined role and a process, and also that groups of colleagues may engage in the process of facilitation (Dogherty et al., 2010).

Yet, our data clearly indicate that the role of project management and leadership of facilitation processes should be divided between external and internal facilitators. In our project, the facilitators were assigned the project management of planning and organising the education and coaching sessions in co-operation with the NH leader. We had not specifically addressed the responsibility of 'initiating and seeing the change through' in the intervention protocol (Dogherty et al: 86). Hence, the practice differed between the NH leaders in our study; some took on the responsibility, and others left it open to 'everyone and no one in particular'. We identified that shared decisions were

put into action only in the nursing homes in which the leaders undertook the role as internal facilitator and ensured follow- up between the coaching sessions.

When the leaders acted as internal facilitators they provided conditions such as; more staff present at coaching sessions, they documented and communicated agreed measures to relatives, doctors and other staff members, and they supervised the follow-up between coaching. Hence, the leaders' activities directly and indirectly increased the potential for success stories to happen. Directly, by ensuring promoting conditions for implementation, and indirectly, by supporting and demonstrating the value of the facilitator's work. Colleagues could be found to support each other and consequently the implementation process, but only when the leader took an active part. If not, single staff members or a group of staff members did not succeed in pulling reluctant colleagues. Instead, the enthusiastic nurses turned disillusioned and disappointed.

This type of active leadership practice was not described in the studies I included in the review (Chap. 2). Yet, in keeping with the anticipated 'strong' leadership element in PARIHS, several studies indicated the value of a transformational and enabling leadership style. In particular, the findings from case studies alluded to the leaders playing a vital role in creating and supporting the facilities' knowledge application capacity (Berta et al., 2010b, Perry et al., 2011) (Ward et al., 2012). However, no effectiveness studies concerning leadership or organisational infrastructures could be found (Flodgren et al., 2012).

Thus, given the impact we found of leadership **practice** in the MEDCED study, I performed a simple search in COCHRANE in December 2014. No relevant results were found when I searched for 'impact of leadership on patient outcomes' or 'impact of leadership on nursing practice' or 'leadership in nursing'. The reason is probably due to the difficulties of isolating the complexity of the practice field into falsifiable or confirmative hypotheses. Particularly so, as we experienced in the MEDCED study, it is difficult to conceptualise reliable intervention outcomes linked to patients. In hindsight I challenge our choice of measuring the effect of an intervention that targeted staff education in terms of reduced restraint and agitation. The findings from the process evaluation clearly demonstrated that successful learning and willingness, individually

and across the staff, was not enough in itself to put the knowledge into 'restraint free' actions. In other words, the education intervention might be a success, but the limitations in the context prohibited the results that could be measured in 'effectiveness numbers' of reduced restraint and agitation. On the other hand, because of the attempt to measure 'end user data' combined with process evaluation and action research, we were able to reveal the multifaceted and complex interplay that influenced whether the knowledge was put into action or not in daily practice. Several elements embedded in the interaction were identified and related to areas such as; the staff's skills and motivation, the contextual borders and the situated practical outcomes of the care practices. I therefore value our attempt to use patient related outcomes as the measure of effectiveness of interventions in nursing practice. For future research though, I have learned that we will have to work more to align the outcomes along the chains of interacting causes and mechanisms, in line with questions embedded in realist evaluation (Wong et al., 2013b, Marchal et al., 2013).

However, due to the identified lack of studies related to leadership practice in the field of nursing, I wanted to look into leadership studies in education. Arguably, schools and nursing homes are different institutions with different mandates, goals, resources, and outcomes. However, there are similarities related to professional development and workplace learning; the leaders in both organisations have the main responsibility to ensure that their staff learn and practice the best evidenced working methods towards the third parties they are supposed to serve. Thus, when our data indicated the value of a more active leadership practice than is presently conceptualised in the PARIHS framework, I found it interesting to look into recent research of school leadership effectiveness.

Similar to the field of nursing, few studies related to educational leadership have examined the impact related to the service recipients. When the New-Zealand government asked Professor Robinson and colleagues to examine the impact of school leadership, they identified a 'radical disconnection between research on educational leadership and the core business of teaching and learning (Robinson, 2011). Consequently, when they performed a 'best evidence syntheses' of educational leadership, they could only identify 27 out of 'the hundreds of thousands of studies'

published worldwide that met the inclusion criteria of measuring the impact on educational outcomes for students (Robinson et al., 2008):8. The remaining bulk of studies were designed to judge leadership effectiveness by criteria like school management, staff relationships and innovative practices. Robinson (2011) argues that such impact criteria have overshadowed student outcomes in evaluation of school leader effectiveness because it is difficult to isolate the contribution of leadership to student progress. School leaders influence only indirectly on student performance. The impact is also confounded by factors like student and community background. Hence, based on the assumption that what is good for the teachers is also good for the students, a vast amount of research has focused on the qualities of school leadership instead of using the impact on learning as the measure for effective school leadership. The authors acknowledge that the relationship between the two remains to be evidenced. On the other hand, Robinson and colleagues (op cit) were able to justify from their review that that specific leadership practices significantly influenced the social and academic achievements of their students.

In the first part of their meta-analysis of the 27 included studies, the researchers calculated the relative impact of transformational and instructional leadership on the reported student outcomes. When the average effect of instructional leadership was found to be three to four times that of transformational leadership, Robinson and her colleagues scrutinized and clustered a total of 199 survey items from the included studies into five broad sets of leadership practices:

a) establishing goals and expectations; b) resourcing strategically; c) planning, coordinating, and evaluating teaching and the curriculum; d) promoting and participating in teacher learning and development, and e) ensuring an orderly and supportive environment.

In the next stage, they calculated the impact of the five leadership practices on student outcomes in the original studies. Although the five dimensions work together as a set with strong reciprocal effect, 'promoting and participating in teacher learning and development' had by far the strongest effect. They further identified that the leaders in

schools where students achieved 'higher- than- expected'- levels focused more on the improvement of teaching and learning, compared to similar schools where students performed 'lower –than- expected' (Robinson et al., 2008). Thus, the authors concluded that educational leadership should be judged by the impact on the learning outcomes for the students of whom the leader is responsible. Consequently, Robinson developed a model of the 'What' and 'How' of student-centred leadership to identify the effects of the five above mentioned sets of leadership <u>practices</u>. This approach is clearly distinct from models using more abstract concepts as leaderships <u>styles</u>, such as transformational, democratic, transactional or authentic leadership that 'tells us little about the behaviours involved and how to learn them' (Robinson 2011:3).

In the PARIHS framework, the leadership element is characterised by leadership style, and placed on a continuum predicting the likelihood for successful implementation to occur. *Traditional, command and control leadership* is placed on the weak side, and *transformational leadership* at the high. However, in the further specification of subcharacteristics, we find a mixture of leadership style and practices, such as at the weak side *lack of role clarity and teamwork*, and *didactic approaches to teaching/learning/managing*. On the strong side, the leadership style is considered as having *role clarity and effective teamwork*, while the practices are described as *enabling/empowering approach to teaching/learning/managing* (Rycroft- Malone, 2010):table 5.2, p 115-117.

However, it is less clear if the leaders are anticipated to play an active role in setting goals and organising the staff's learning. The wording of enabling and empowering approach may indicate the same assumption that was challenged related to school leadership; that enabled and empowered staff will initiate learning and putting new knowledge into action without the active involvement of their leaders. The same assumption is explicitly expressed in a recent model of person-centred leadership describing that:

"... the primary aim of person-centred leadership is to enable associates coming into their own, based on the assumption that when people feel good at work, performance and commitment are more likely to follow" (Cardiff, 2014):225.

Interestingly, findings from the MEDCED results point in the same direction as Robinson and colleagues found. The patient outcomes we could measure in terms of instigated changes towards more person-centred care, and less restraint, were linked to whether the leaders took an active part in the staff learning activities. As the reflection notes and ethnographic field studies showed, it was only in the nursing homes where the leaders took the role of internal facilitator that agreed measures were put into action between the coaching sessions. In the other homes the leaders organised and enabled time and space for the staff to participate. They were also present at the seminars and coaching sessions. However, they expected their staff to do the follow- up and implementation into daily practice, and nothing happened from one month to the other in these homes.

Hence, while the findings confirm the dynamic interplay between the E+C+F, we found that the leadership factor trumped the other two at the sub-element level of context. Further, the MEDCED results confirmed the assumption that evidence is more likely to be accepted if the content is in line with the knowledge and experiences of patients and staff (Rycroft-Malone et al., 2004c). This could be seen in relation to success stories or 'champagne moments' when agreed measures had resulted in restraint free and personcentred care.

In addition, our findings add a new dimension to the conceptualisation of the 'evidence' by showing that evidence can also be understood as something that can be released through facilitation. Not only as something new and research based that is brought in from the outside. The evidence in the MEDCED intervention was the package of education and coaching aiming for the nursing home staffs to make shared decisions by the use of a structured 7- step decision model (TFT-model). Our data show that many staff members already possessed the knowledge that was introduced. However, we identified that the effective component was that the TFT-model offered a structure to collectively address the knowledge that individual nurses might possess. We also found that the monthly sessions organised by external facilitators created an arena where the staff members were coached to reflect upon challenging situations, and share their knowledge in critical decision making together with their colleagues and their leader.

### **Contesting findings**

Currently, the sub-elements (E+C+F) are explained in details according to their anticipating contribution to a 'low' or 'high' degree of successful implementation (Rycroft-Malone 2010: table 5.2 pp115-117). From a theoretical and methodological perspective, I question the value of detailing all the sub-sub-elements. Particularly in a situation when the framework content needs to be translated to other languages, and when the users of the framework are experienced in the field of teaching and facilitation. On the one hand, the detailed list may serve to ensure a shared understanding of the elements and sub-elements among the framework users. On the other hand, however, more detailed sub-sub-specifications may also increase the risk of the concepts being contextually bound and encompassing elements of less relevance in particular contexts. Given the identified high face validity, our experience indicates that a table outlining only the framework's elements and sub-elements would be more helpful for prospective use to guide implementation in international contexts.

As we experienced, rather than getting 'caught' in the search for Norwegian concepts that best cover the meaning presented in the detailed list of sub-sub-concepts, we found it more helpful to first read core papers (Harvey et al., 2002, Kitson et al., 2008, McCormack et al., 2002b, Rycroft-Malone, 2010, Rycroft-Malone et al., 2004a). Thereafter, we engaged in plenary discussions to ensure a common understanding of the theoretical and epistemological underpinnings embedded in the PARIHS framework. Correspondingly, we made our own list of words to explain the content of the 'context' and 'facilitation' sub-elements related to the Norwegian nursing home context as we knew it. When we in the next stage translated 'our' Norwegian sub-sub-elements to English, we asked Prof McCormack to review it. He confirmed that our understanding was appropriate and in accordance with the notions embedded in the framework. In my opinion, this approves the already identified high face validity, and also the quality and thorough descriptions of how the PARIHS framework has been conceptualised and modified in the years from 1998 – 2008.

Thus, our findings confirm that the PARIHS framework is a 'useful practical and conceptual heuristic' (Kitson et al., 2008). When used prospectively in an international setting, we found that the PARIHS elements and sub-elements were sufficient and

helpful in designing and evaluating the facilitation of a standardised education intervention in Norwegian nursing homes. The concepts were comprehensive and echoed our experiences from implementation activities in our country. In contrast, the detailed descriptions of weak and strong sub-sub-elements (Rycroft-Malone 2010: table 5.2) blurred the comprehensiveness, while the underlying notion of successful implementations as a **function** of the main elements (E+C+F) was valuable in understanding the complexity and shifting implementation conditions we identified to characterise Norwegian nursing home contexts.

Consistent with notions linked to 'third generation' implementation approaches (Best et al., 2008), the dynamic and fluctuating nature of KTE activities is conceptualised in the PARIHS formula SI= f (E+C+F); successful implementation is a function of the interaction between elements connected to the evidence, the context and the role, skills and attributes of facilitation. A continuum to evaluate the readiness for change from 'high' to 'low' evidence and context has been proposed to be a unique characteristic of the PARIHS framework (Kitson et al., 2008).

According to our empirical evidence, however, the sum conceptualised as a function of the E+C+F elements was most helpful to illuminate the successes, failures and mixed results in the different nursing homes. We found that particular factors that proved successful in one nursing home context, could act as a hindering factor in another nursing home due to the interplay with other context elements. In addition, the relative strength or weakness of the elements was found to shift within the same nursing home. Contextual factors such as mix of staff skills related to occurring incidents in the interaction between factual workload and the present level of agitation in patients, could result in the same nursing home being diagnosed 'low' and 'high' at different moments of time. Hence, our findings contest the notion currently presented in the framework; that institutions' readiness for change can be understood as a relative stable relationship of contextual sub-elements which can be diagnosed on a continua from weak to strong prior to an implementation (Rycroft- Malone, 2010):132.

### Suggested refinements and areas for further development

Lately, Rycroft-Malone and colleagues have used the PARIHS framework prospectively to design and analyse the implementation process in a trial study of evidence-based guideline recommendations in UK hospitals (Rycroft-Malone et al., 2013). Although findings from this study confirmed 'the multi-faceted and dynamic story of implementation', the evaluation also revealed that individuals play a more prominent role as part of the interaction between context and evidence, than is currently expressed in the framework. Consequently, the authors propose that the postulation in the framework is refined to express that:

'The successful implementation of evidence into practice is a planned facilitated process involving an interplay between individuals, evidence, and context to promote evidence-informed practice' (op.cit:1).

Our findings support the influence of individual staff members in implementation processes. In an education intervention as the MEDCED, the role of the individuals could be identified at two stages. Initially, when the facilitation concerned acquisition of new knowledge and skills to engage in collective decision-making, we identified that the individual staff members' learning skills and motivation interacted significantly; that is, the way that individuals were able to engage in creative and analytical reasoning, as well as their ability to express their reflections in a group setting. During the coaching sessions, the individual's skills and attributes interacted with those of the facilitators in ways that influenced both directly and indirectly on the facilitation performance, and consequently, also on the patient outcomes. This dynamic interplay between the facilitators and the individuals was identified to spur circles of promoting or hindering implementation factors; the better skills and modes of engagement individually, and in the team of individuals, the more perspectives related to the difficult patient situation could be illuminated. These again opened more areas into which the facilitators could probe with their reflective questions, and thus increase the quality of the staff's collective exploration of finding alternative measures to the use of restraint. Consequently, the potential for 'success cases' increased, which again spurred the staff's belief in, and possible sustained use of, the 7- step decision making model. Finally, the enthusiastic narrations of how shared decisions had resulted in a better situation for patients and staff influenced directly on the facilitators' feelings of

mastering. They thrived in their role, and they experienced that this impacted indirectly on enhanced coaching performance. In the opposite cases, the facilitators reported that they felt disillusioned. In these situations they had few hopes that the decision-making model would be used when the implementation project had ended. These sentiments influenced in turn the way the facilitators coached in these settings. Consequently, they believed that such situations reduced their engagement, and the quality of the facilitation they were able to offer.

In the next stage of putting the agreed decisions into actions between the monthly coaching, it was individual staff members who made the final decisions of whether to stay loyal to and apply agreed measures, or continue to act according to their previous practice. However, another related finding is that in such and several other situations, the individual's role was identified as Rycroft-Malone and colleagues propose; as one of the players in a complex and dynamic interplay with context, facilitation and the nature of the knowledge being introduced. Hence, the utility for prospective use would be increased if more attention was paid to the framework's implicit notions of cognitive and socio- cultural learning theories. The more prominent influence of individuals suggest that the PARIHS formula should be amended to include individuals as well, such as; SI = f(E+C+I+F).

Like our MEDCED findings, Rycroft- Malone and colleagues experienced difficulties of mapping their findings of influencing implementation factors onto the high-low continua in the abovementioned trial study (Rycroft-Malone et al., 2013). Two explanations were proposed. First that the ideal position of the elements may vary in different projects; the ideal position may not always need a ''high' evidence and 'high' context along 'high' (appropriate) facilitation' (op cit: 10) as the framework currently proposes. The other explanation echoes the findings from the MEDCED - and from recent case studies (Berta et al., 2010b) (Ward et al., 2012), and points to multiple and dynamic interconnections that may vary within an implementation project throughout its lifetime.

Consequently, Rycroft-Malone and colleagues propose that the high-low continua may be helpful to provide:

"...a visual representation at diagnosis (i.e., a snapshot), but less useful in evaluating the process of implementation because it does not capture dynamism and patterns over time" (Rycroft-Malone et al., 2013):10.

I agree with the idea of using the 'snapshot' metaphor to underline that a diagnosis can only capture the relative readiness for change in the context at the moment in time when the diagnosis was made. However, the MEDCED findings from particular nursing homes suggest that a diagnostic snapshot should also strive to include a situational dimension in terms of factors that are more or less stable or moving. Even though our findings support a fluctuating and dynamic interrelationship between the elements, we were able to identify that some influencing factors in the context were more stable, like for instance the buildings and where the nursing homes were geographically situated, the staff- patient ratio, as well as the leadership practice linked to the KTE activities. Other factors were more fluctuating, like the mix of the level of agitation in the patients relative to the nurses' skills and attributes in particular situations. Hence, I suggest considering to include an assessment along a continuum of more or less stable influencing factors related to the type of evidence that is sought implemented. To this end, the knowledge exchange framework proposed by Ward and colleagues (2012) might provide useful insight. This framework depicts knowledge exchange as dynamic and fluid. The fluidity is illustrated in a figure with five wave streams in different colours (problem, context, knowledge, intervention and use), each of which contain several identified factors. The five wave streams may occur separately or simultaneously, and in no set order (op cit:fig 4,p 301).

When discussing the 'visual snapshot' (Rycroft- Malone et al 2013), our findings indicate that the dynamic interaction between the elements should be highlighted at the expense of the high-low continua related to the evidence and context sub-elements. In addition, as suggested by Kitson and colleagues (Kitson et al., 2008), the recent development towards third generation system models (Best et al, 2008) support that the proposed diagnostic processes could take place as a facilitated dialogue where relevant stakeholders from different system levels are invited to share their views on the 'snapshot diagnosis'. This could serve as a useful intake to communicate and agree to aims and purposes of suggested evidence informed changes.

### Concluding remarks of suggested theoretical implications

The MEDCED findings concur with recent implementation studies highlighting the dynamic and fluid nature of evidence-informed knowledge exchange and knowledge integration in complex nursing and health systems. Hence, the results support the underlying assumptions in the PARIHS framework that evidence-informed practice can be successfully promoted by facilitated action in a process of interaction between individuals, evidence, and context. These notions are currently expressed in the formula SI= f (E+C+F). We found that this formula was helpful in reminding us that we needed to pay attention to the function of interacting factors, simultaneously with our attempts to identify the particular elements in the nursing home contexts that could hinder or promote the implementation process. The way of illustrating the interplay in a formula worked well when we communicated how the MEDCED intervention was theoretically framed to different audiences in diverse situations. When communicating to other researchers or academics I used the formula as an entry to more detailed discussions of the sub-elements, as well as to the notions of the 'high –low' continua, and the characteristics of the sub-sub- elements. At information meetings with stakeholders in the nursing homes, however, I experienced that this formula provided a useful illustration to 'catch at a glance' the complexity that was embedded in the MEDCED study.

However, when evaluating the utility to prospectively guide the design and evaluation strategies in a mixed method and participatory study as MEDCED, we found that the focus on the function as a sum of interacting factors most helpful. This in contrast to the hypothesised value of more detailing and assessment of the relative weight of some elements (Kitson et al 2008: Pentland et al 2011). Consequently, our findings indicate that further framework amendments should highlight the dynamism between the main elements (E, C & F) at the expense of further analyses of the relative strength and influence of the single elements along a high-low impact continuum. The stronger focus on the interplay between the framework elements could perhaps be depicted by a change of the miniscule and capital letters in the formula; the 'function' that denominates the sum of interrelated and interacting elements could be expressed with a capital letter, and the interacting and fluctuating nature of elements that impacts on

implementation processes could be changed to small letters. In addition to the previous suggested formula to include an 'I' for individuals, the assumptions for the PARIHS framework could then be expresses with the formula: SI = F(e+c+i+f).

Finally, I suggest that the concept of 'implementation' in the formula is changed to denominate 'integration'. The formula would then express the current knowledge base embedded in the third generation system models I have elaborated in chapter two. To my understanding, the notion of implementation activities in the 'third generation models' is in line with areas that Kitson et al (2008) suggest addressed in further development of the PARIHS framework. Successful knowledge use will then be conceptualised as a function of effective integration within organisations and its systems (Best et al., 2008, Ward et al., 2012). Alike the assumptions in PARIHS, in system model approaches, activation is deemed necessary to link the various parts of the health systems together in the knowledge integration process.

Consequently, I suggest changing the formula to express that Successful Integration of knowledge is Function of the sum of the elements of evidence, context, individuals and facilitation. The abbreviated formula will then be SI = F(e+c+i+f).

The PARIHS framework's utility to guide implementation practice and research would benefit from more studies which use the framework prospectively. The identified dynamic and fluctuating nature that characterises knowledge integration in health systems indicate use of research and evaluation approaches that enable participants to act, observe, and react to shifting conditions in the course of the implementation, and simultaneously observe and describe how the chosen strategies mediate or hinder knowledge integration in different circumstances for particular persons in specific contexts. Findings from the updated review (Chap. 2), and the MEDCED study indicate that further conceptualisation and testing of PARIHS should privilege the parts of the framework that relate to the **function** as a sum of interacting evidence- informed, context, individuals and facilitation elements. For example not only, as the framework currently conceptualises, of how the 'evidence' is perceived as strong or weak from the patients and professionals' perspectives. It is also important to study relevant stakeholders' considerations of how the evidence- informed knowledge relates to

features at the micro- meso- and macro levels in their health systems, such as; a) the policy and visions, priorities, context, culture and challenges, and b) the organisational readiness in terms of relevance, timeliness and resources.

The MEDCED finding indicates promising aspects of a combined role and process of external and internal facilitation. More research is needed to examine the potential value of sustainable structures for knowledge integration when clinical leaders act as internal facilitators, and collaborate with external facilitators who are acting in dual roles as knowledge brokers and action researchers. A greater understanding is also warranted of the function between the role and attributes of stakeholders at different organisational levels (political and administrative) relative to the clinical leaders who have the responsibility to ensure that evidence-informed knowledge is put into action on a daily basis. More research is also needed to examine the 'whats' and 'hows' of clinical leadership practice towards individuals and team of staff members that spur circles of promoting and prohibiting implementation factors. For this purpose and connected to the identified importance of 'workplace application capacity' (Chap. 2), more explicit use of cognitive and socio- constructive learning theories may prove valuable.

## **Practical implications**

### Lessons learned from the MEDCED study, and implications for the future

'Now what?' 'Are you leaving us now, or would it be possible to continue the collaboration with the Centres for Development for Institutional and Home Care Services (CDIHCS) in our regions? And what about the Centre for Care Research in Western Norway?' 'Could we signal our interest to participate in a new project, because we have experienced the potential of the 7- step model and think it could be used to promote person-centred care in other care situations as well?' 'How can we ensure that our politicians and leaders get to know the results, and not the least understand how different the situation is for the nursing homes across the municipal boarders?' 'Please, could you come and talk about the results to our political and administrative leaders? They'll listen more carefully when researchers talk'

These, and similar questions were frequent when we met with the leaders in three of the four counties after the intervention. We had invited the leaders to evaluate their participation in the programme, and also to discuss and give feedback on our

preliminary analysis of the QL and QN data. However, we experienced that that the majority of the leaders were more concerned about issues related to sustainability and continuation. The outcomes in terms of restraint and psychotropic drugs, as well as the numbers of successfully solved challenging situations were mixed across the nursing homes (16). However, nearly all the leaders we met expressed that they had experienced positive changes in their nursing homes as a consequence of the project. They remarked especially that the staff's consciousness of person-centred care and issues related to the Patient Rights Act had increased. The changes could be observed by the way the staff spoke about patients and professional challenges; they increasingly saw 'the fisherman' or 'the priest' rather than only the 'patient living with dementia'. Accordingly, one of the leaders reported that the way of sharing the care tasks had changed. The common understanding had created an acceptance of not succeeding to, for instance, fulfil a morning bath. Previously, this would have been regarded as a failure with the nurse. Consequently, the leader reflected that such situations previously had been more likely to be performed by degrees of force and restraint. After the MEDCED intervention her staff now regarded denials more related to the patient's right to decide that he did not want the bath done at this time and/or by her. Thus, the leader observed that the carers either asked colleagues to try, or they discussed openly whether or not other options could be found because they were not able to manage on their own.

Further, the leaders said that they had particularly appreciated that they for a change could participate together with their staff in continuing education activities that were initiated, organised and performed by somebody else; and more importantly, from somebody external. Several leaders were well qualified with master's degrees and specialisation within dementia, older people's care or within education.

#### Thus, as one of them said:

'There was nothing in this education package and coaching that I couldn't have taught myself. I have the skills and experience, and I have been a coach for many years. However, I am sure that we have had this success because the facilitators came as experts from the outside. When they said the things that I even may have said earlier in staff meetings, I saw my staff nodding and acknowledging the facilitators' expertise. If it had been me saying exactly the same things, I am sure they would have sighed and said 'oh well; now she is

talking again'. For me, this was a typical example of the proverb saying that an expert is a man from out of town'.

However, she had also learned new things about her staff when observing and participating in dialogues as one of the participants in the group. Although she acknowledged her superior position, she said that the facilitated dialogues and challenging questions from the facilitators had opened for reflections that she had not experienced to have had with her staff. She had now become more aware of 'the things happening behind the closed doors'.

Another leader said that she would very much hope that a practice developer from the CDIHCS could continue the coaching. If necessary, she was willing to pay for the costs. If it could not be done on a monthly basis, she would appreciate at least some scheduled meetings on a regular basis. This leader came from one of the NHs in the intervention group. They had early experienced circles of success and consequent engagement from the staff. This leader had taken the role as internal facilitator right from the outset. Thus, after the intervention, she and her staff had decided that she should take the responsibility to organise monthly meetings where they could continue to use the decision making model to discuss person-centred care for other patients and in other situations. She had been very committed because she had experienced that early success cases had created a loyalty to shared decisions of changes in nursing care that she never before had seen. At a meeting with the other leaders from the 'intervention NHs' one month after the intervention, she said that she had written her master thesis related to leadership of change. Hence, this had been an area of particular interest in her leader job, and she would never have believed that 'something as simple as this – organising coaching and shared decision making could create such loyalty across the whole staff'. After having organised the coaching on her own the last six months, however, she strongly advocated the advantage of sharing the facilitation task with external facilitators. Partly, she supported her colleague's reference to the 'expert from out of town', but more importantly for her was that the external facilitators were differently positioned and equipped with perspectives and updated evidence informed knowledge that she did not possess. She also referred to the learning pressure created by the Coordination reform and changes in national and local policy and regulations. When

tasks and responsibility were redistributed in the chain of health service, most notably in her situation from hospitals to nursing homes, resources rarely followed. Hence, the qualification and workplace learning to ensure that the innovations and evidenced informed practice could be performed according to legal requirements and 'best care decisions' had to be done within the NH's already scarce resources. Other leaders across the different municipalities echoed her views, and said that they found it challenging to handle the pressure of bringing their staff up to a qualified level within the resources that the majority of the leaders found was already overstretched.

Thus, when considered within an action research frame, it was satisfactory to hear the leaders' feedback. At one level it confirms that their anticipated value when they accepted to contribute to the MEDCED research was met; that they valued the gain to be appropriate to the resources they had spent on participation in the study. I was also pleased by the narratives, and not the least, by the request of continuing participation which I take to confirm their 'second party value' (Reason and Bradbury, 2011). However, the request may also be seen as a failure to meet the aim of sustainable use of the decision making model within the nursing homes. Likewise, the insufficiency of a wider 'third party' (op cit) impact may be reflected in the expressed hopes that we should communicate the results to their political and administrative leaders. As such, the feedback can be interpreted to support the findings from the reviewed case studies (Ward et al., 2012, Berta et al., 2010b, McKay et al., 2009b), as well as the potential embedded in the third generation system model approaches (Best et al., 2008); that the challenges of naturalistic knowledge exchange need to consider all parts involved in an implementation process. Not only, as in the MEDCED study at the micro and mesolevel of the nursing homes. Concurrent with the third generation model, the ruler of successful knowledge use is the degree of how knowledge is integrated within the organisation(s) and across all levels of its systems. All elements influencing the practice and performance of organisations and systems need therefore to be considered, such as; policy makers and funding, the role of organisational and clinical leaders, the strengths and expectations of various partners, timeline, organisational readiness, decisionmaking, the individual and team members skills and motivation for workplace learning and incentives for change.

This may be particularly important in Norway at this moment because our health care system is undergoing fundamental changes and restructuring as a consequence of the Coordination reform. The main aim is to improve the collaboration between hospitals and municipalities, and the implementation of the reform has been backed by an obligation to collaborate from the Norwegian Parliament. Nevertheless, both the facilitators and the participating leaders in the MEDCED study identified the practical consequences first and foremost in more nursing and treatment tasks being transferred from hospitals to nursing homes. Resources in terms of money, extra staff or teaching assistance to enable the nursing homes to undertake the new responsibility were less obvious.

The impact from national health politicians related to instigating the reform in the municipalities, however, was substantial. Central political influence has also been identified to characterise Norway compared to our Scandinavian neighbours. According to a recent analysis of the current collaboration strategies for integrated health care in Denmark, Norway and Sweden (Ahgren, 2014), all countries were found to have been influenced by development trends of decentralisation, specialisation and professionalization. The health policy in the Scandinavian countries share similarities in aiming for equal and just distribution of services for all inhabitants, and the current collaboration strategies are similarly fiscally financed. 'Collaboration' has been the mantra for change in all three countries. This has led to roles, tasks, and responsibilities being divided and distributed.

Nevertheless, unlike our neighbours (op cit: 54), Norway has chosen strategies to develop inter-organisational integration and inter-professional collaboration with strong support in national reforms and legislation. In contrast, the Danish strategy has been more of a top-down with the risk of more resistance among health care professionals, whereas Sweden has decentralised the sovereignty of decisions to each county; hence increasing the risk of unequal health distribution across its counties. As remarked by Ahgren (2014), it is too early to assess the effects of the strong obligation from Norwegian politicians to force representatives from hospitals and municipalities into collaboration. However, it is certain that the practical and economic obligations are impacting stakeholders at all levels in the Norwegian health system. Among several

recent national policy documents, the issues and challenges related to the Coordination reform are discussed in the recently launched State Budget for 2015, as well as in a new national innovation and research strategy 'Health & Care21'(Norway', 2014). Thus, returning to the questions from the participating nursing homes' leaders in the MEDCED intervention; now what?

# On the trail of a promising model for innovation and evidence informed practice development in Norway?

When reflecting on the question and bearing in mind the influence from wise people I have met, in person and through their texts during this PhD journey, the answer has to be affirmative to further participatory collaboration. As an employee in the Centre for Care Research in Western Norway, there is no other possible answer than to continue the participatory search for promising structures to handle the continuous pressure of workplace learning and innovation that the nursing home leaders and nursing staff experience today. Similar to practically all Norwegians, I value the overall goals that all Norwegian citizens shall be entitled to the same right to receive the best evidenced informed and person-centred nursing and health services. In a geographically dispersed population living in a small country like ours I acknowledge the political, professional, fiscal, legal and practical challenges this represents.

At the same time the MEDCED trial findings nurture optimism. We found that the interaction between professionals and politicians, as exemplified in the introduction chapter by referring to the 'Dementia strategy from 2007 – 2015, has resulted in increased person-centred dementia care and reduced restraint (Appendix 16). Likewise, our qualitative findings strongly support the potential of the collaboration structure as described in the national strategy 'Development through knowledge' (introduction, p 15). As demonstrated in the Action Cycle chapter and in line with the assumptions in the 'Development through knowledge'- strategy, the facilitators from the development centres and the university colleges, as well as researchers from the Centres for Care Research agreed that the collaboration across our institutions offered a promising structure for practice development and innovation in the municipalities. Accordingly, all parties pertain that the way we collaborated in the MEDCED study has met our work obligations and mandates in a way that have made us flourish in our roles.

Like the findings described in the review chapter, our experiences point to the potential success when researchers are assigned dual roles as knowledge brokers/ facilitators/ action researchers. The same applies to the value of developing reciprocal and longstanding partnerships between researchers and professionals. To this end, the request from participants in the MEDCED study to continue the research can be seen as an indication.

However, as evidenced in the review of the implementation literature, there is a potential to further develop the collaboration structure by including more stakeholders. In particularly, we need to include political and administrative leaders because of the strong influence of political and legislative instigated reforms in change processes in the Norwegian health system.

In conclusion, therefore, and based on the insight from this thesis, the Centre for Care Research Western Norway (CCR-WN) has decided to apply to the Norwegian Research Council for a new grant ultimo March 2015. We have engaged a part time professor from the UK to take the lead as the principle investigator; she has substantial experience from practice development in diverse health organisations, as well as from action research. In line with part of the Centre for Care Research's mandate, I will be the responsible project leader and act in a dual role of action research and facilitation/knowledge brokering. The main purpose will be to continue the search for promising structures for innovation and practice development in the Municipal health service, and possibly for the nursing home sector in particular. We will build on the collaboration structure between the CCRs and the CDICHS, and the University Colleges. This time however, we will include a broader range of stakeholders across the municipal health service, including stakeholders from the hospitals in the region as a consequence of the Coordination reform.

Apart from deciding that the research will be framed within the national health and research policy, and within a participatory action research approach, further details will be left for shared decisions with the actual participants. Thus, we have invited a broad range of regional stakeholders to an initial meeting. In keeping with the insights from the MEDCED study, we will engage the stakeholders in the further definition of the

research questions. Following this meeting stakeholders will be invited to commit to participation in the research application. Thereafter, we will develop the specific implementation and research strategies together with the committed stakeholders. Corresponding to our current findings, the end users who have the final responsibility to ensure that changes are put into practice will be given a prominent role to set the agenda for the collaborative endeavour among knowledge providers and stakeholders. In the Norwegian municipal health system this will most probably be the clinical leaders, or the nursing home leaders.

In my role as project leader, I will introduce the results from the MEDCED research. I will use the CrHeKCoP- model as an intake to share the philosophical and theoretical insights I have gained from working with the PhD thesis. In my inputs to the discussions I will particularly draw on the experiences of how critical creativity enabled new insights and disclosed possibilities; thus created the energy and made room for neglected and devalued and suppressed forms of reason that the Australian based philosopher Kompridis (2006) purports is especially called for in challenging and exhausting times.

## 8. Critical appraisal of the study

Quality and Validity; powerful words;
belong to a research world of Academics.

In the world of Participation and Action and Research;
it is about Democracy and Reflexive Dialogues
to value our work;
Have I done good work?
Have we done good work?

And what is good for whom,
in what circumstances,

and why?

I suppose the beauty of being a PhD student is that your work is followed by supervisors, and that the worthiness of the work is assessed by examiners in the end. However, the influence and contribution of action research to people and the wider society will depend on the action researcher's willingness and ability to engage in conversations about validity within and outside the academic society. Thus, at the end of my qualification journey, I will once again accept an invitation from Reason and Bradbury in the last chapter of their Handbook of AR; 'to include a review of the strengths and weaknesses of the work in relation to the issues and choice- points we are raising' (Reason and Bradbury, 2008):454.

Five interrelated issues and eight choice points are presented as reminders of areas that action researchers should reflect on and debate with those involved in our research. As I have described in the previous chapters (5&6), I have to some extent engaged in reflexive dialogues with the facilitators, my co-moderators and the nursing home leaders. Some of their views on the value of our work are already cited. Thus, in this final chapter I will reflect from my own perspective. I cite the issues and choice points presented by Reason & Bradbury as headlines:

# 1. Is the action research: Explicit in developing a praxis of relational-participation?

According to Reason & Bradbury the ideal answer to the question should be that participants refer to the research as their own. Ideally they should also say that their research participation helped to see their context anew, as well as empowered them to act in 'all sorts of new ways'. When I am reflecting on this question, I am again reminded of how lucky I have been to have co-operated with well qualified and motivated participant researchers. I sincerely believe in authentic and democratic participation, and I am therefore confident that I made my intentions of relational participation clear from the outset. However, the choice to engage in the skilled and enthusiastic way they did was the facilitator's choice alone. The same applies to their honesty when they critiqued the quality of our relational- participation in Action Cycle One concerning their integration as participating researchers.

I had, as described, relations to nearly all the facilitators before the research started. Due to the collaboration structure between the development centres and our research centre, we are expected to continue to collaborate in the future. While our connections made the initial work of creating a common ground of trust easier, the same relations could perhaps constrain the facilitators' honesty in critiquing my conduct. I was cognisant of this, and I also deliberately stressed the fact that I envisioned critique as the best way they could help the project and also my PhD to succeed. Thus, when reflecting during the course of the study I am confident that the advantages of the initial relations and common goals encouraged rather than prohibited the facilitators' honest and critical engagement as participating action researchers. Both elements were prerequisites for the insight that made me introduce critical creativity to the subsequent knowledge coconstruction. As shown in the statements and results from the mini-cycles' post-intervention, it is particularly in Action Cycle Two that the facilitators start using words like 'our findings', the knowledge 'we' developed etc.

The interaction between me as the responsible researcher and my participating researchers can be compared to the presented MEDCED findings of how the interplay between the facilitators and the nursing home staff stimulated circles of promoting implementation factors. Thanks to the facilitators' willingness and analytical abilities to

express issues of importance for the 'relational-participation', I was able to react in a way that turned out to enhance the quality and validity of authentic participatory knowledge co-construction. The facilitators have lately been invited to two national research conferences, and one experience- sharing conference organised by the Health Directorate. In these occasions, they have described the MEDCED results and their own growth as facilitators and action researchers in terms that would merit the 'ideal' label (Reason & Bradbury 2011). Three out of four practice developers have also asked to be included in the planned research proposal to continue the research. The fourth has just started on a PhD and has therefore not the capacity. My answer to the first question is therefore that I have conducted the AR satisfactorily in terms of developing 'praxis of relational-participation' (op cit). However, it is **we**, not me who have done good work. As can be seen from the following reflections related to focus group four, it was the facilitators' aptitude to express resistance to my preconceptions that directed me to introduce critical creativity for the remaining part of our research.

# The moment of disclosure and the rewarding search for better alternatives to undertake authentic participatory knowledge co- production

In focus group interviews (FG 1 -3) in Action Cycle One when we explored the facilitators' experiences and preferences of how they would like to be prepared, and what methods they thought would most likely promote a successful facilitation, it was easier than in FG 4 to bracket my own self-understanding (Finlay, 2013). Although I shared the experience of teaching and coaching, I had never participated in a standardized intervention and been obliged to teach and coach according to a protocol. Thus, I found it easy to stay curious and genuinely questioning whether it could be possible to deliver authentic education in a standardised way; what it felt like having to do so, and how this differed from the way we usually prepare our education? Consequently, it felt natural to stay curious and engage in reflective dialogues to explore the kind of personal and practical challenges this might raise.

Like proposed by Finlay (Finlay, 2002, Finlay, 2008), when reflecting back on the experiences, I consider that my assumptions and teaching experience were helpful to relate to and pose relevant questions. The same related to unpacking the areas that needed attention and shared decision making within our participatory team. This was

also remarked upon as an advantage in the feedback from my co-moderators who, unlike me, were new to the nursing home field.

However, the situation changed when the intervention started and the area for common exploring in FG 4 was the ongoing facilitation towards the nursing home staffs, and the interaction with their leaders. My pre- understanding in this area was related to having taught in similar situations with comparable audiences, albeit not according to a standardised protocol. In the immediate reflection after FG 4 I started to realise how this fundamentally challenged my ability to adopt 'an open discovering way of being' (Dahlberg et al., 2008):98.

When I prepared for the interview I had also made a descriptive statistic of fidelity issues from the reflection notes that the facilitators had written from the coaching sessions (n=36). Hence, I had discovered that less than one staff member on average had brought the education material when they were being coached. I had also summed up the evaluation notes that the staffs had written in response to the facilitator teams' request for feedback at the end of the two day seminars.

In discussions before FG 4, and based on this information, my co-moderators and I had formed the opinion that the effective value was not the education content as such. Rather, as we saw it before the interview, the effective ingredients in the MEDCED intervention were the arenas that the facilitator teams created in the seminar and the monthly meetings. During these sessions they facilitated the use of the TFT- model, and coached the staff to make shared decisions based on the person-centred knowledge. When performing FG 4, I afterwards realised, I had set out to have these notions confirmed. I had tried in different ways to pose questions so that the facilitators could confirm that they shared my understanding of the effective intervention ingredients. During the interview I had the feeling that I was not able to pose the questions in such a way that they understood what I was asking for. After several attempts of failing to get the answers I was looking for, I decided to continue exploring other themes from the interview guide.

However, when I said so in the immediate reflection with my co-moderators after the interview, and also said that I felt partly disappointed with my conduct, I was surprised

to find that my co-moderators Eva Marie and Stine did not share my view. On the contrary, they thought we had had an interesting session, and especially so because of the facilitators' nuanced reflections of their role and performance in the meetings with the different nursing home contexts. Although I could relate to the interesting and reflecting dialogue that had taken place between the facilitators, it was not until I transcribed the audiotape that I realised that the facilitators had actually answered my questions about the effect of the education 'package' in several ways.

The pivotal eye-opener for me, however, was that the facilitators had not confirmed my anticipations. Rather they were talking about the intervention 'package' as a whole. As they saw it, the written material, the TFT- model, the themes, and the shared experiences from the seminar acted as a common frame of reference that the facilitators referred to when they coached; either to fuel discussions, or to explain and frame elements in the workplace culture. They therefore disagreed with my view, and expressed their insight in several ways according to my different angles of posing the questions. FG-4 took place midways in the intervention. Thus, it was a timely and welcome lesson for the remaining part of the study to learn that I was not open enough during the interview to fully understand the facilitators' answers. I value how this experience helped me to qualify my abilities as researcher. I had been confident that thorough preparation in attentive listening, reflexivity and being conscious of possible pitfalls had enabled me to better adapt a 'phenomenological attitude'; in terms of involving 'the sense of wonder and openness to the world, while, at the same time, reflexively restraining pre-understandings' (Finlay, 2008):2.

When I listened to the audiotape from FG 4, and particularly when scrutinizing my ability to stay curious and not too consumed by my own presuppositions, I could understand why Eva Marie and Stine did not share my sentiments of being unsuccessful in the interviewer role. The questions I had posed were open- ended and I had managed to probe deeper into the facilitators' statements. I had also deliberately asked the persons who had talked less to share their reflections. Consequently, from an outsider's perspective this seemed to be a sound approach when striving for democratic dialogues. As the insider in the interviewer role, however, I know from my reactions and sentiments during the interview that the reason behind could as well be termed as a

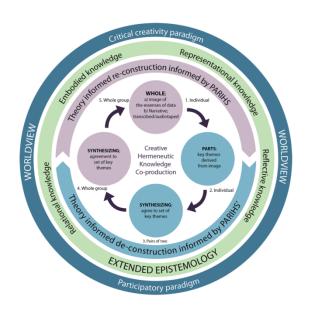
strategic search for confirming answers, rather than the seemingly openness and curiosity that the transcript from the interview might indicate.

I was both disappointed and somewhat fearful when I discovered that I was not the open-minded and unbiased researcher that I had trained and prepared myself to be. I had sincerely believed that my thorough preparations and reflexive dialogues with my diary and with my co-moderators had enabled me to put my presuppositions in parentheses. When I realised that this was not the case, and in addition had experienced that the facilitators during nearly 18 months had not opposed my preliminary analyses from FGs, I started to question the degree of authentic participation in the research. Consequently, I wanted to find ways to ameliorate this situation, and in particular to ascertain that I did not influence the results unduly.

I could argue that I took precautions to qualify the process; we were three researchers present, all the transcripts were sent to the participants afterwards, and I had also set up strategies to manage my phenomenological attitude. Likewise, that the interviews were done multi stage, and therefore made it possible to continue or return in the following interview to elements that I had overlooked the last time. Both elements have been proposed by other researchers as a way to ensure validity and quality in PAR processes. In hindsight though, I am satisfied that I did not choose to argue along those lines.

Instead, my growing uneasiness related to my phenomenological attitude inspired me to look for other ways to manage the 'dialectic dance between the reduction and the reflexivity' (Finlay 2008:18) for the remaining part of our participatory knowledge coproduction. The revelations from FG-4 luckily made me start looking into how critical creativity and creative methods could offer better alternatives to secure an authentic and democratic knowledge construction. A result of this process was the creation of the Creative Hermeneutic Knowledge Co-production model (CrHeKCoP- model fig 6).

As has been described in chapter 6, by introducing critical creativity approaches to our participatory data analysis (Boomer and McCormack, 2010) I could now ascertain "communicative space" (Kemmis, 2011) for the participative and democratic analysing and knowledge co-creation post- intervention. And best of all, the stepwise use of the model, starting with the individual images and narratives, ensured that I did not influence the facilitators' analytical approaches. Thus, the CrHeKCoP- model not only offered a systematic and multifaceted approach to analyse data from a variety of data collection methods. I also found that the model assisted me to better act in accordance with AR principles like 'emancipation' in terms of democracy and empowerment, and 'transformation' in terms of striving for human flourishing (Titchen and McCormack, 2010). And importantly, at the same time comply with methodological principles of



research integrity like 'honesty, accountability, professional courtesy and fairness and good stewardship' as agreed in the Singapore statement from 2010 (Wager and Kleinert, 2010)(Research Integrity Protocol, University of Ulster 2013).

In conclusion, I am confident that I and we have done good work in an authentic and participatory way.

However, as I have shown, this can

be accredited to the facilitators' skills, honesty, fairness and engagement. Whether or not I would have been able to disclose the discrepancy between the open-mindedness I thought ruled my interview conduct and my factual performance in FG-4 cannot be certain. Arguably research situations are varied, as are the persons and context involved. Still I pertain that the more skilled the participant researchers are, the easier it will be to achieve good quality and validity relational - participation. Consequently, the participants' degree of ideally felt ownership of research results and insight into their own context (Reason & Bradbury 2011) can be seen as a function of interplay between

all parties' skills, engagement, honesty and loyalty. Such qualities are of course important in all good research conduct. However, researchers opting for participatory engagement should pay particular attention to creating inviting conditions for the interaction between participants. For future projects I will draw on how I experienced that critical creativity and the CrHeKCoP- model enabled me to develop a 'praxis of relational- participation' in the MEDCED project (op cit:454).

# 2. Is the action research: Guided by reflexive concern for practical outcomes?

Concern for the practical outcome of our work is important for AR. This is because action research engages stakeholders and researchers in shared concern and interests for the situation at stake. Thus, people's ideal response is that the action research 'worked' or 'was helpful (Reason & Bradbury 2011). Even though this is not a straight forward answer, the authors pertain that action researchers' reflexivity should be directed towards the value of what we are trying to achieve. In addition, as proposed in the realist evaluation tradition, we should also include 'for whom' in what circumstances.

I have already reflected on these issues in my thesis; the facilitators' and my reflections have been elaborated in Action Cycle One and Two. The values from the nursing home leaders' perspective have been discussed according to the practical implications in chapter 6. I therefore continue to the next issue.

### 3. Is the action research: Inclusive of a plurality of knowing?

How have extended forms of epistemologies been drawn on and been present in the work we have done, and the way the results are represented? Reason & Bradbury (2011) argue that knowing can occur in different ways, all of which should be acknowledged and tried reflected in the way we question the quality of our work. Ideally diverse ways of knowing should be drawn on and integrated during the inquiry process and presentation of results so that people would say 'that is true, that is right, that is interesting, engaging, thought provoking' (op cit: 345).

To the question of plurality of knowing, I have already described how I deliberately have drawn on the insight from critical creativity, Several ways of knowing have been systematically invited, and a variety of 'voices' (re Action Cycle Two) have been used

to present the results of our work. We have so far presented our findings mainly to the nursing home staffs and leaders (re chpt 6). It therefore remains to learn how people in the wider national and international context will react to the results.

The facilitators' second person interests have already been described, and their reactions come close to the 'ideals' as proposed by Reason & Bradbury. For me in terms of 'first person research', I have found both the research journey and the results indeed thought provoking, interesting and engaging. This became particularly clear to me when I was invited to present my work at an international Knowledge Utilization conference in June 2014 (KU 14). Part of the challenge was to write an abstract for the conference beginning with 'If my research was to be a song...'. When I pondered on this challenge, I could not understand why Louis Armstrong's song 'What a wonderful world' kept coming back into my mind. Even though we had seen promising practices in some nursing homes, neither dementia, nor restraint fitted into a wonderful world. Why then did this song occur?

On a reflective walk I suddenly realised that it had to do with the 'Wonderful world' I experienced when I included critical creativity in the process of analysing and cocreating knowledge with the facilitators and the two co- moderators. I had been energized by the possibilities of exceeding the conventional western epistemological horizon that was opened by critical creativity. At the same time I had realised how this approach ensured a systematic and relational way of engaging in inquiry with municipal stakeholders that would be valuable for research approaches to develop future nursing and health practice. Not only had I discovered that participatory engagement in critical creative activities and communications were meaningful and possibility disclosing. Such approaches could also be argued to be central and aligned to the more vaguely described political mandate for our Care Research Centre of 'practice related and collaborative research and development in the Municipal Health Sector'.

### 4. Is the action research: Worthy of the term significant?

Because action researchers work together with people in circles reflecting and acting upon areas of real importance for people's lives Reason & Bradbury argue that they should risk asking 'big questions' of whether their work is valuable and worthwhile.

The aim should not only be to do good work. As action researchers we should ask how our work may contribute to a 'world worthy of human aspiration' (op cit: 449). The work should also be performed in a way so that people ideally could say that 'work is inspiring, that work helps make me live a better life' (op cit: 449).

Presently, I feel that these questions of worthwhileness are too big for me to pose in connection to the current study; I have engaged in action research with facilitators who have participated in only a small percentage of their work position, and for a limited period of time. The same applies to the last issue;

# 5. Is the action research: Emerging towards a new and enduring infrastructure?

According to Reason & Bradbury, we should regard action research as an enduring and potent orientation to change and transformation that involves institutions and systems at an individual, group and community level. The ideal answer from people who have been involved in such emerging and enduring work would be that 'This work continues to develop and help us', or 'Can we use your work to help develop our own?'. As action researchers we should be concerned about how our work has emerged and developed over time, about sustainability into the future, and also of how our work may be useful in similar situations.

The limited time and scope of the MEDCED project makes it difficult to answer the fourth and fifth issue. However, as discussed in the practical implication of our work (Chap. 7), I feel that we are on the track of a worthwhile mode of collaboration between the development centres, the university colleges and our research centre. This could perhaps provide sustainable and promising structures for future practice development in the municipal health service. As such this structure could have the potential to integrate three manifestations of work that Reason & Bradbury pertain to be valuable and worthwhile for action research: 'for oneself ('first-person research practice'), work for partners ('second-person research practice') and work for people in the wider context ('third-person research practice'). By engaging with stakeholders at a different system level in a participatory search for sustainable infrastructures, I envision the potential to create new behaviours and communication structures across several organisational and

system levels. Consequently, worthwhile possibilities for human flourishing may occur for the people who are receiving and providing municipal health and nursing service in Norway. If we are lucky enough to receive a grant to continue our work in this direction, I suggest that we address the above proposed validity issues and choice points in shared discussions with all parties several times during the course of the research. In the MEDCED project I addressed the relationship, the practical outcomes and the extended ways of knowing in the beginning of the project, and when I became uncertain of my own ability to conduct the research in a satisfactory participatory way. However, there would have been a potential to address the issues and choice point in a more systematic and deliberate way which I believe would have been helpful in structuring a participatory debate and reflection about the quality and validity of our work with my research participants.

### Reflections on the choice of methods

The experience and results from using PAR in the MEDCED study have increased my belief and fascination of the potentials embedded in action research. My purpose for choosing this approach when I was given the possibility to do a PhD was threefold; first, because of the possibility to systematically combine the role of facilitation with systematic observations of promoting and hindering factors of putting the knowledge into action in the nursing homes. As identified in the thesis, this provided good and systematic process data, as well as enabling conditions for the facilitators to flourish in new roles as participating researchers. Secondly, because I wanted to increase my understanding of the worldviews and epistemological underpinnings of action research, and consequently empower my arguments in future discussion with my colleagues at the Centre for Care Research when we will decide which methodological approaches we will choose for future research projects. Thirdly, because it allows action into knowledge generation, and welcomes committed political, social and cultural engagement in areas that call for our attention as one of the sources in a participatory and critical endeavour to create worthwhile and sustainable changes for the people involved. I am satisfied that I at the end of this journey can conclude that I would have chosen the same research strategy over again. This time however, I would have added a fourth purpose that I discovered through the influence of the critical creativity

worldview; the purpose in transformational action research to exceed the limitations of the Western epistemological approach to knowledge production, and include multiple ways of knowing and debating the quality and validity in our research.

The combination of cluster- RCT, PAR, and ethnographic fieldwork in the study was both challenging and promising. Overall, the combination of these methods gave a comprehensive picture of what might plausibly work (QN and RCT) and yielded some plausible explanations about why it worked (QL, ethnography, and PAR reflections), including why, under what circumstances, and how the MEDCED intervention succeeded or failed in specific nursing homes (Mekki et al., 2015). These types of answers are important to provide to policy makers when we want potential promising results translated and replicated in other nursing home settings. However, the lessons learned from our study show that it is not possible to identify exactly what works for whom, under which circumstances, and why. Nevertheless, by using a mixture of RCT, PAR, and ethnography, we obtained some plausible different explanations by investigating interrelated contextual factors in order to highlight limitations and possible barriers to success. We also found that inclusion of trial to the research design made us gather context data related to fidelity issues more systematically informed by the WIDER recommendations (WIDER, 2008). Unexpectedly, I found that the summarised statistics from these data provided valuable insight tor the analyses and knowledge construction of the PAR and Ethnography data. For instance, it was these data that first pointed to the influence of leadership practice.

On the other hand, I have learned that performing mixed methods research in a multidisciplinary team with little experience of mixing methods across post- positivistic and participatory worldviews is challenging because of issues such as; contradictory paradigms and underlying logics of inquiry, generalisation, and internal trial validity. With the insight gained from the worldview and methodology studies related to the PhD work, I now realise that most of these challenges were related to inexperience and lack of insight into how contradictions could have been pragmatically managed. Based on these experiences, I agree with Biesta (2010) that by looking at each element in the research process separately, we could have identified with greater precision whether the different aspects involved in the mixed research are unproblematic, as well as identified

specific areas that require further attention. If we had done this, I think we not only could have prevented some of our frustrating and unproductive discussions linked to research strategies and priorities. But more importantly, starting the project by defining a common platform of understanding and agreeing to a paradigmatic model to guide the project through all phases could have resulted in better choices. This would also have made it easier to remember to discuss the different choices available with respect to the overall purpose throughout the course of a long-term study, rather than, as we experienced, to what "could and could not" be allowed in terms of the rigor and rules of the trial. However, despite these challenges, I have learned that the richness and power of the explanations obtained made the struggle within our MEDCED research team worthwhile. Furthermore, I will use my insight and build on the CrHeKCoP model to create a shared paradigmatic model for future mix method projects, and keep in mind that "methods don't make assumptions, researchers do" (Bonell et al., 2013, p. 124).

In the MEDCED team, our initial lack of attention to our underlying assumptions of internal trial validity and the purpose of implementation sustainability may have limited our creativity to maximize the potential benefits of mixing the methodological approaches that we selected. Therefore, an important lesson is that the starting point for research collaboration in mixed methods projects should be to address issues of mutual respect regarding the potential differences in values, underlying assumptions and philosophical frameworks that inform researchers' use of different methods (Greene and Hall, 2010, Hart et al., 2005, Johnson and Gray, 2010).

#### Conclusion

Choices to engage in action research are motivated by participation, democracy and activity in the critical search for practical solutions to enhance people's lives. Thus, values from a worldview and lived experience of participation should be used as the measure to critique the quality and validity in such studies. In this chapter I have applied the broadened bandwidth of validity concerns as proposed by Reason & Bradbury (2011) to guide critical reflections of my work. Five issues which together provoke eight choice- points are proposed to encourage debates around questions about relationships, practical outcomes, extended ways of knowing, purpose and enduring consequences. All issues have been addressed, but I found the first three most relevant

for my study. I conclude that I have practiced participative-relational work of good quality because of the skills, honesty, fairness and engagement among my participant researchers. Thanks to this I was able to create the Creative Hermeneutic Knowledge Co-Production model. Guided by this model, I conclude that I made space for embodied knowledge and creativity that energised and empowered the facilitators to take on more active roles in the knowledge construction process in Action Cycle Two than in Action Cycle One. However, I did not, as suggested by Reason & Bradbury (2011) systematically engage all those who were involved in my research to debate and reflect upon the quality and validity issues during the course of the study. This is a lesson learned for future research projects as I found that the proposed questions acted as appropriate reminders of the specific purpose and outcomes we aspire for in action research.

#### **Contributions**

The key contributions made by the thesis are theoretical and methodological. Both relates to the field of participatory action research and implementation. Perspectives from; a) critical creativity worldview (McCormack & Tichen, 2006), b) creative hermeneutic analysis (Boomer and McCormack, 2010), c) participatory action research (Reason and Bradbury, 2008) and d) PARIHS (Kitson et al., 2008) are brought together in a coherent framework for facilitating implementation in nursing and health institutions in a participatory way. The frameworks' paradigmatic and epistemological elements are brought together and illustrated by the construction of a model called Creative Hermeneutic Knowledge Co-Production (CrHeKCoP, fig 7). Similar to experiences from the PAR research in the study, the model may prove as a useful heuristic to visualise and guide authentic participatory data construction within teams of collaborating professionals and other stakeholders.

The study has also contributed to further develop an epistemological framework for PAR created by Peter Park (2008). By including critical creativity to the study and experiencing how this made way for 'utopian energies' and new ways of seeing the world (Kompridis, 2006), embodied knowledge encompassing the power of creativity is suggested as a fourth category in Park's broadened epistemology for PAR research. The three existing categories and the suggested fourth, are illustrated in figure 3.

Lastly, several areas of contribution are identified and suggested connected to the existing conceptual PARIHS framework. Like previous studies from English speaking countries, the framework proved helpful in guiding prospective implementation activities in Norway. However, some refinements are proposed to increase the utility of PARIHS for prospective design. First, to highlight the notion of the dynamic and multifaceted 'function' between the sub- elements of 'evidence + context + facilitation at the expense of further conceptualisation of the elements. Secondly, that more elaboration is warranted from the communicative aspect of facilitation to integrate knowledge into practice; a practice that need to be understood as complex and fluctuating within the whole health system that surrounds the direct patient care. Thirdly, that individual skills and motivation needs to be included as a fourth sub-element in the framework because individuals have been found to influence more the process of putting knowledge into action than is currently conceptualised. Consequently, the present PARIHS formula of successful implementation

(SI = f (E+C+F) is proposed to denominate Successful Integration = Function (evidence + context + individuals + facilitation (SI = F (e + c + i + f)).

The practical contributions of the study point to the potential success of long-term national strategies to legally regulate and integrate knowledge within the field of Dementia Care in municipal health services.

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## Appendix 1 Summary search desember 2012

Data base	Result	Irrelevant	Detailed abstract	Full	Number of reduction after full review
		papers	review	review	No and letters refer to 'Table XX of inclusion and exclusion criteria'
Business Source	124	115	3	6	2 (2b), 3 (2c) <b>1</b>
Elite					
Cochrane	49	40	3	6	1 (due to 2a) <b>5</b>
Psychinfo	115	87	21	9	2(2b), 3 (2a), 1 (2c) <b>2</b>
CINAHL	582	546	25	11	1(2b), 1(2a), 1 (2c) <b>7</b>
MEDLINE	337	309	17	10	3 (2c), 2 study protocols <b>3</b>
Social Science	351	334	12	5	1 (due to 2a), 1 because it was a study protocol 3
Index					
TOTALT	1558	1429	81	48	21

### Reductions after full review

The main reason for exclusion after full review was that the abstract did not specify the target group for the transfer of knowledge. When the full review revealed the target group to be the public these were excluded. The same unclearity appeared to the aim of the KT and KE activities. When this was found only to concern further education aiming to increase the staffs' capacities to use research in practice, further 8 papers were excluded.

Number of hits before duplicate	Number of hits after duplicate
All references: 1798	All references: 1729
Business Sourse Elite: 124	Business Sourse Elite: 124
Cinahl: 591	Cinahl: 582
Cochrane: 49	Cochrane: 49
PsycInfo: 117	PsycInfo: 115
Isi Web of Science: Sosial Science Index: 375	Isi Web of Science: Sosial Science Index: 375

#### Table x Inclusion and exclusion criteria 15

For inclusion in the review research papers had to meet the following criteria:

- 1) Peer-reviewed journal articles
- 2) Reports commissioned by health service organizations
- 3) English language only
- 4) Published from September 2009 to December 2012

As this integrative literature review is designed to help identify the most effective methods of knowledge transfer and exchange in health services the following criteria were also used:

- 1) Included articles which displayed the following characteristics:
- a. Evaluations or descriptions of collaborations between health service knowledge users and knowledge providers to promote the sharing of research information or evidence
- b. Evaluations or descriptions of collaborations between health service knowledge users and knowledge providers to create action from knowledge
- c. Evaluations or descriptions of collaborations between health service knowledge users and knowledge providers to undertake the production of new research information or evidence
- d. Literature reviews (including unpublished/grey literature) relating to the overall process of, or individual elements of KT and KE
- 2) Articles were not included that
- a. Dealt with the transfer of knowledge between the practitioners/researchers and the public
- b. Dealt with the transfer and diffusion of programme or organizational innovations that do not include new research evidence
- c. Focused solely on the further education of health staff in research techniques, methods for accessing knowledge or building capacities to use research in practice

 $<sup>^{15}</sup>$  Adjusted from search criteria from Pentland et al 2011, p 1410

Appendix 2 Summary of included studies in the re-iterated integrative review from September 2009 – December 2012

Descriptive information Authors, date of publication, methodology	Study objectives Focus, target audience	Definitions offered Knowledge transfer, knowledge exchange, knowledge translation etc	Application to practice
(Murthy et al., 2012) Systematic review of 8 studies.  5 Randomized Controlled Trials (RCT) and 3 Interrupted time series (ITS)	<ul> <li>Identify and assess the effects to support health system managers, policy makers and healthcare professionals' uptake of systematic review evidence from:</li> <li>a) information products based on the findings of systematic review evidence</li> <li>b) organisational and processes designed.</li> <li>Target groups:</li> <li>Seven studies targeted medical clinicians (nurses, physicians, public health professionals)</li> <li>One RCT evaluated an organisational intervention, including a knowledge broker, tailored messages and access to a repository of systematic reviews.</li> </ul>	None	Mass mailing a printed bulletin that summarises systematic review evidence may improve evidence-based practice when:  • there is a single clear message • the change is relatively simple to accomplish • there is a growing awareness by users of the evidence that a change in practice is required.  The value of multifaceted intervention to develop awareness and knowledge of systematic review evidence, and the skills for implementing this evidence is indicated. However, there is insufficient evidence to support this approach. No statistically significant difference in evidence informed programme planning was found in an organisational intervention using a knowledge broker, access to sources of systematic reviews and provision of tailored messages.

(Giguère et al., 2012) Systematic review of 45 studies (14 RCTs and 35 ITS studies)	<ul> <li>Examine the effect of printed educational materials (PEM) on healthcare professionals' practice and patient health outcomes.</li> <li>Explore how source, content and format of the printed educational materials influence the effect of the materials on professional practice and patient outcomes.</li> <li>Focus:         <ul> <li>44/45 studies compared PEM to no intervention.</li> <li>One study compared PEM to CD – ROM delivered material.</li> </ul> </li> </ul>	Expanded terminology to describe characteristics of printed material.	Printed educational material (PEM) may have "a small beneficial effect on professional practice outcomes" when used alone, and compared to no intervention. Due to insufficient information, the effect of PEMs on patient outcomes could not be reliably estimated. Thus, the clinical significance of the observed effect sizes is not known. When compared to other interventions, or as part of a multifaceted intervention, the effectiveness of PEM is uncertain.
(Flodgren et al., 2012)  Systematic review of one ITS study from the USA – involving one hospital and an unknown number of nurses and patients	Assess the effectiveness of organisational infrastructures in promoting evidence-based nursing (EBN).  The participants were all healthcare organisations comprising nurses, midwives and health visitors.  Focus: Organisational infrastructure such as organisational policies, nurse development units and other types of organisational developments such as organisations developing and implementing EBN procedures, standards or including	Organisational infrastructures defined as being "the underlying foundation or basic framework through which clinical care is delivered and supported" (p2),	Finding only one low-quality study, the authors concluded that policy-makers and healthcare organisations wishing to promote EBN at an organisational level successfully must fund and ensure the conduction of well-designed studies to generate evidence to guide policy in this field. When considering the importance placed on organisational infrastructure in promoting EBN, the authors found it especially surprising that appropriately evaluated organisational infrastructure interventions are still lacking.

	guidelines for clinical practice.		
(Flodgren et al., 2011a) Systematic review of 18 RCT studies	Assess the effectiveness of local opinion leaders used to improve professional practice and patient outcomes.  Involving more than 296 hospitals and 318 Primary Care Practices	Opinion leaders not clearly defined in the included studies.  In the review, opinion leaders are described as people who are trustworthy and influential, thus, having the ability to persuade health care providers to use evidence when treating and managing patients.	The value of opinion leaders alone, or in combination with other interventions, is suggested to successfully promote evidence-based practice. However, the effectiveness found varied both within and between studies, and the role of the opinion leader was not clearly described in most studies. Thus, it is still uncertain which is the best way to enhance the effectiveness of opinion leaders. Not only because the results are based on heterogeneous studies that differed in terms of type of intervention and the settings and outcomes measured, but also because most of the studies were found to have some methodological shortcomings.
Menon et al (2012) Systematic review, 7 databases, 12 studies included (4 RCT, 5 before – after and 23 case-series studies included).	Examine the effectiveness of single or multiple KT interventions to improve knowledge, attitudes and practice behaviour of occupational therapists and physical therapists.	CIHR def of KT	Participation in active, multi-component KT interventions was found to improve self-perceived knowledge and positive changes in the actual and self-perceived practice behaviour in physiotherapists. This in comparison to passive dissemination strategies. However, the improvements to change the clinicians' attitudes towards best practices were not found, and the KT strategies that can effectively change clinicians' attitudes remain unclear. Additional research is needed to understand the impact of these strategies on occupational therapists. Such research needs to include matching the KT strategies to the clinicians' work environment as well as their specific learning styles and behaviours. For both groups, serious research gaps remain related to

			which KT strategies that can positively impact on patient outcomes.
(Munten et al., 2010a) Framework- synthesis of 21 studies retrieved from MEDLINE and CINAHL  Refined framework from Plas et al 2006 to distinguish four target groups;  • individual end users • individual intermediaries • organisation the society as a whole	Review of research projects using action research to implement evidence based practice in nursing.  Target group: Nurses	Sackett et al's definition of EBP	Using action research is suggested to be a promising approach to implementation of evidence based practice. In particular if the outcomes are broadly understood in terms of changes in the nurses' ways of thinking and acting to develop their practice. Nevertheless, cautious interpretation of the results is required due to possible publication biases because papers with positive rather than negative results are more likely to be published. It is also noted that firm conclusions could not be drawn because detailed description of implementation strategies and activities, including their intensity and frequency, were lacking.  Likewise, incomplete information of methodology, and poor quality reporting limited the insight and conclusions of how intensity, relationship and facilitation style impacted on the reported results.  Only seven of 21 studies reported outcomes on patient level, and no research project reported specific results related to leadership. Also, very few interventions were aimed at changing leadership and culture.
Drolet & Lorenzi (2010) Review article,	Develop a clear framework and	Referring to (Dougherty D, 2008):	Propose a methodology to address the entire continuum of translational research introducing a
Review urucie,	terminology to understand the complicated	3 translation periods:	realistic and pragmatic framework called the
Review, synthesize, and	process of translating knowledge to health	T1 – basic science	"Biomedical Research Translation Continuum built
clarify the current models	gains.	translated to clinical	on 'the 3Ts' roadmap'. The framework clarifies the steps in the translation process, making it possible
and terminology of translation and		efficacy T2- efficacy translated	to understand, to identify and bridge the gaps in the

translational research in		to clinical	process from biomedical research evidence
Biomedical.		effectiveness	through effectiveness trials onto clinical practice
		T3- and, finally	and finally to public health gains. According to the
However, search strategy		clinical effectiveness	authors, translation of research to improve public
and procedure poorly		translated to health	health gains could be greatly increased by a better
described		care delivery.	understanding of how to bridge or shorten the
		Translational research	chasms between the different steps along the
		is defined as activities	continuum. Thus by using this framework, authors,
		bridging the chasms	researchers and clinicians may be enabled to refine
		described in the 3Ts'	discussions of translation processes and more
		roadmap occurring	precisely identify barriers to progress and clinical
		along the entire	use. This in turn is argued to potentially increase
		continuum of the	the advancement of knowledge translational
		translation process,	activities.
		including	
		implementation and	
		adoption to reaching	
		accepted clinical	
		practice research.	
(Pentland et al., 2011)	To help inform the design and	Refer to current	Concludes that robust research into KT and KE is
	implementation of sustainable KTE	existence of 'a	limited. However, a number of common features
Integrative review of six	mechanisms in a large health care	multitude of	are identified, but more evaluation is needed for
databases (ASSIA,	organisation	definitions, concepts,	the application of facilitation of evidence based
Business Source Premier,		processes, descriptions	practice in nursing.
CINAHL, PSychinfo,		and models relating to	
Medline and the Cochrane		KT and KE'. However,	See also chapter XX for a thorough description of
Database of Systematic		except for noting the	the findings.
Reviews)		difficulties related to	
		conducting the review	
		none of these are cited	
		specifically.	
(Kagan et al., 2010)	To provide a background to KTE by	CIHR def. of KT and	Summarize evidence for KTE activities being the

Literature review of theoretical models of Knowledge Translation and Exchange activities (KTE).  Search strategy not described.	reviewing theoretical models and basic principles and elements of a KTE plan, as well as by highlighting potential contributions to the field of clinical aphasiology.	CIHR definition of knowledge broker  Ref. to Lomas (2006) for the five principles of KTE  Ref. to PARiHS for the role of social interaction	most effective in meeting the needs of all stakeholders when they are reciprocal and involve users in the research process right from the start. Also advocates the importance of making a KTE plan from the outset of a research project. Provides two examples, both involving researchers (from a 'think tank faculty') and practitioners seeking to allow for interaction and collaborative problemsolving to identify research needs and practice priorities in the field of clinical aphasiology:  1) from a unique conference design including significant interaction between researchers and practitioners using 'mentoring and partnership',' Group discussions' and 'Snapshots of cutting- edge knowledge'  2) CoP in communicative access and aphasia on an on-going basis designed to exchange knowledge and change behaviour as well as influence research agendas. Access to librarians and knowledge brokers was used to provide linkages between Cop members and researchers. However, although receiving positive feedback, the CoP's
			impact on the KTE activities is not yet formally evaluated!
Berta et al (2010)(Berta et	To inform theory on learning, KT and,	Within-organization	The knowledge application process in the LTC
al., 2010a)	innovation adoption in LTC by testing the	knowledge translation	facilities was found to be highly complex, iterative,
Multiple case study within	knowledge application process, and	is referred to as	and reliant upon the facilities' knowledge
7 long term care facilities	enhance understanding of enabling or	knowledge application.	application capacity, or absorptive capacity to
LTC- facilities,	impeding factors in organizations when	Uses Graham & Tetroe	effect change through learning. Conceptually,
differentiated by size, ownership, rural/urban	applying new knowledge to improve care	(2007) definition of knowledge application	'Knowledge application capacity' involved factors at the individual, organisational, environmental

location		as a sub process of IVT	level, and the level of the knowledge itself. The
location	T	as a sub-process of KT	
20	Target group:	that is the "iterative	majority of elements required for successful
28 semi- structured	managers & practitioners in LTC who had	process by which	knowledge application in LTC context were found
interviews within 7	successfully applied EVB clinical practice	research findings are	to be <u>organisational</u> . Thus, in addition to necessary
homes, and focusgroups	guidelines, focusing on the knowledge	put to use"	individual learning, new knowledge application
involving 15 other homes	application capacity.		should be regarded as an organisational level
involving a total of 35		Organisational learning	phenomenon that requires collective action,
senior clinical staff		theory used to frame	organizational capacity and support. Across the
		the inquiry and	diverse organisational settings, the role of
		supplied with Bandura	organizational leaders (including clinical leaders)
		(1998) social cognitive	in creating and supporting the facilities'
		theory of motivation	'knowledge application capacity', or 'absorptive
		and behavioural	capacity' were found to be vital for successful
		change to cover the	knowledge application processes.
		individual aspect of	
		learning.	
(Ward et al., 2012)	Two-fold aim:	KT definition from the	Found that knowledge exchange could be seen as a
Case study, realistic	1. Illuminate and illustrate the nature	Canadian Inst. of	dynamic and fluid process that includes distinct
approach, brokers doing	of knowledge exchange that make	Health Research	forms of knowledge from multiple sources.
parallel observation	changes appear in health care	(CIHR)	Challenge the linear, technicist approaches to
studies, QUAL and	settings		knowledge translation, and found that five broadly-
QUAN of field notes and	1) To develop a realistic and		defined components of KE activities (problem,
QUAL interview (n=10)	informative framework which		context, knowledge, activities, use) could all
	illustrates the dynamic nature of		happen simultaneously and did not occur in a set
	knowledge exchange		order. Propose a revised model of KE as a help to
			reorient the thinking about KE, and suggest that
			the framework can act as a starting point for
			further exploration and evaluation of the KE
			process. Acknowledging the dynamic nature of
			KE, the authors question to what extent formal
			knowledge translation interventions can and should
			add value to the naturalistic KE in their own

			context. The findings also suggest that naturalistic processes of reflexivity and discrimination should be integrated in formal knowledge translation activities.
(Campbell, 2010) Case study of children's health issue in rural Canada using PAR and Ottawa model of research	To partner researchers and users using PAR to translate knowledge into action	CIHR def of KT	Suggest a conceptual framework "The applying knowledge to generate action" for knowledge translation in a rural community context linking PAR, the OMRU and KTA frameworks.
use (OMRU) and later Knowledge –to – action (KTA). (n = unknown)			Concludes that to result in action, the knowledge being translated needs to be relevant, appropriate, applicable, timely, and reasonable to the needs of the intended users. Therefore, users of research
			must be involved at <i>some</i> level in creating, implementing and evaluating the research, whereas all participants must contribute to find the most appropriate translation strategy since this is
			contextual and needs to meet the specific needs of the community and/or its users. Thus, supports a participatory approach with an on-going user focus acting on created knowledge.
(Martiniuk et al., 2011a) Case study to translate scientific evidence of the	Aims to demystify the process of translating findings into practice by using an epilepsy education programme as a case	CIHR def of KTE	Demonstrates how to think about what knowledge is to be translated, timeline, research evidence, who the policy makers are, how to foster a
Thinking about Epilepsy programme into action	study		successful partnership, the strengths of various partners in knowledge translation activities, and how to roll out a programme in terms of best
			practices, contingency planning and funding.  Illustrates the importance of starting the knowledge translation process at the beginning, not at the end, of a research project. Therefore, KT should also be
			budgeted and incorporated in the initial grant

			application.
McKay et al (2009) Case study /work shop from consensus building workshop for Emergency Department (ED) medical doctors to overcome barriers to dissemination and implementation in Emergency Departments  (N=?)	Present the outcome of a consensus building workshop entitled, "Overcoming Barriers to Implementation and Dissemination" convened at the 2009 Academic Emergency Medicine Consensus Conference, "Public Health in the ED: Surveillance, Screening, and Intervention."  Method: For each area of interest, research dimensions to extend the current understanding of methods for effectively and efficiently implementing evidence-based public health interventions in the ED were discussed and consensus was achieved.	Webster's dictionary "diffusion for propagation and permanence; a scattering or spreading abroad, as of ideas, beliefs, etc" dissemination must come before implementation (p1133).	Workshop participants agreed that implementation of new ED-based public health programs needed to recognize both the research evidence and the culture and microenvironment of the specific site. Also, they voiced the need for ED-doctors to think outside the box and participate in creating policy support for essential public health interventions on the regional, state and federal level. The consensus was published in six specific recommendations to overcome barriers to implementation and dissemination of public health intervention in the Emergency Department.
(Perry et al., 2011) Qualitative exploratory framework study testing the utility of the PARIHS framework based on a case study encouraging best practice in residential care units in Australia.  QUAL study, interviews and recorded meetings with staff across three facilities (n=29)	Examine relevance and fit of the PARIHS framework as a model to explain practice change in residential aged care.	The PARIHS def	Preliminary analyses suggest that the PARIHS framework can be recommended as a tool for knowledge translation activities in residential age care. Findings showed good fit and relevance for the complexity of aged care facilities with the simultaneous function as residents' homes, staff workplaces and businesses in Australia. Likewise, the utility of PARIHS as an organising and explanatory tool for practice change in Australian residential settings was confirmed. A new finding illuminated the time-dependent nature of facilitation implying that it is essential to time the intervention with other priorities, and allow staff adequate time to adjust and adapt to new ways of

			working. More projects and international
(Wilson et al., 2010)  Study comparing the concepts and methods of community-based research (CBR) and existing KTE frameworks. The comparison was used to develop a framework for community-based KTE that builds on both the strengths of both approaches	To develop a strategy for community-based knowledge transfer and exchange (KTE) that helps Community Based Organisations (CBO) to more effectively link research evidence to action.	Definition of Community Based Organisations (CBO), of KT (CIHR –def) and of CBR – Community Based Research	comparison are warranted.  Propose a framework for community-based KTE that will help CBOs to more effectively link research to action at the community level consisting of the following four primary areas:  1. developing and maintaining partnerships 2. increasing the production of community relevant systematic reviews 3. creating an integrated and large-scale evidence service 4. evaluating efforts to undertake CBR and to link research evidence to action.  The strategy for community-based KTE focuses on an expanded model of 'linkage and exchange', and emphasizes the importance of both producing and
			an expanded model of 'linkage and exchange', and

# Appendix 3 Time, content and methods for the two- day seminar

Time	Content	Methods
Day 1;	<ul> <li>5 minutes exercise</li> <li>Introduction; Skilled workers - happy residents, but first and foremost</li> </ul>	Lectures
8.30 – 10.03 a.m	<ul> <li>Information about the program, project background, the incidence of restraint</li> <li>Presentation of participants</li> <li>Objective of the course / program. 'Trust rather than restraint' (TFT-model)and the decision-making process in general</li> <li>Dementia, BPDS/ NPS, Agitation and restlessness, Problem Coping Behaviors</li> <li>Introducing elements in the TFT- decision proces; The patient reference system, social and community issues, dimensions of quality of life and welfare.</li> </ul>	
10.30 – 11.15	LUNCH – provided by the nursing home	
11.15 – 15.00	<ul> <li>Ability to consent, Chapter 4A in the Patients' Rights Act, 'Everyday decisions, the best interest of the patient.</li> <li>TFT-decision making modell'; the Staff's reference system; Profession &amp; professional knowledge, restraint, patient - personal relationships, personcentred care, possible options, control</li> </ul>	Lectures, role-play, group and plenary discussion.  Interview exercise related to staff reference system & interests
<b>Day 2;</b> 8.30 – 10.03 a.m	Reflections from yesterday; the Staff's reference system; Profession & professional knowledge, restraint, patient - personal relationships, personcentred care, possible options, control	
10.30 – 11.15	LUNCH – provided by the nursing home	

11.15– 14.40	• Patient- staff relationships; the staff's feelings, attitudes and communication, Lectures, role-play, group				
	attitudes and actions, attitudes to patients with dementia. Empowerment — and plenary discussions				
	control in the relationship. Possible options. Power.				
	Chapter 4A of the Patients' Rights Act; confidence-building measures, non-				
	pharmalocical treatment at various levels. Person-centered care; unmet needs				
	The decision-making process: The patient reference system: Relational and				
	movement in the relationship. Possible choices in relationships.				
14.30 – 15.00	Summary, feed-back and preparing for the coaching sessions				

Appendi	IX 4	Template re	effection note	es seminars								
Facilitato	or teai	n:										
Nursing	Hom	e							Date	<u>.</u>		
The Room	-		participants /experience-	Leader present?		-		tia related Co ation they will	_		_	other
Culture;												
PARIHs	conce s. The	epts related	v	three sub-el	ements of	evaluatio	on, context	extended temp t and facilitatio d).		~		
	-	ystems for	continuous q	uality impro	ovement v	vork:						
Other th	ings?	•										
			es today, pleas del?(re. PARI		nere on the	e scale yo	ou would r	rate the Nursing	g Home's co	ontextual abil	ity to learn	using
	2	3	4 5	6	7	8	9	10				
Weak			<b>←</b>	→				Strong				

### Appendix 5 Template reflection notes coaching sessions Facilitator team-1, coaching session 3

**Fasilitatorteam**: L & B Date: 10.01.2013

Nursing Home: NH NN Note no 3 No of pages: 2

Situation brought to coaching? Are unsure if they have any situations involving restraint, have some situations where they «lead» the patients (*directly translated – the facilitators had put the word in these signs*)

The room	No of participants	Leader present?	Were all present at the seminar?	Any one new from last time (all participants in the last coaching?	Have the brought the manuscript/ the decision-making model & "Seven- steps" model?
Staff room at the second floor, where we have been a couple of times before.	6	yes	yes	Yes, leader	No

#### Culture;

We are being well received; sit in a group in the staff break room. Getting coffee. A number of disturbances from other people coming to the door and leaving again. One of the participant's mobile phone rang several times; she did not know how to turn it on silent mode. Would not receive help, because "now it won't ring any more," she said.

Very nice atmosphere, good tone in the group, laughter (easy going and shared laughter)

## **Leadership:**

Nurse ward nurse /leader participates in the group are active and taking notes.

L. facilitates the coaching, B. takes notes and supplements.

### **Evaluation /systems for continuous quality improvement work:**

L. welcomes and summarizes what we agreed last. We are curious to know how things have gone with the patient being discussed last time. All agreed that the last meeting was greatl! We could see that they bubbled to tell us the things that had happened in the meantime. They say that they have discussed the situation with the supervisory physician and the patient's relatives. The staff had argued for the measures they had agreed upon at the last supervision meeting. They wanted that the patient should be permitted to walk freely, not having clothes that were zipped at the back against her own will, confined by force (they had used safety rail, front board chair, footstool, clothing with lock in the back ... against the patient's will!).

The patient's relatives gave permission for them to try out the measures they suggested based on the decisions they had agreed to in the coaching, with the result that the patient has had a wonderful and splendid time! The patient has begun to eat again, she goes to the toilet when she needs (control of urine) smiling, she is walking alone, talking more, her analgesic/ pain killer has been seponated, she is not so stiff anymore! Amazingly enough, she has started to wash herself and has regained her winner instinct. She intends to win playing Ludo! The staff even believes that the patient's seeing and hearing have improved!

A 'sunshine- story'!! The doctor and relatives, and the other staff at 'home' are very surprised. The patient is flourishing! L .praises them and says that they can be proud of themselves, having accomplished this, and that they should make it into a story to use to 'show that it is possible!'

L. points to two factors that they need to discuss based on what they have told;

- 1. Some of the employees said in the beginning that they were 'idiots' who thought that this was possible to achieve/ could be possible to pursue.
- 2. Some staff had also refused to participate in the things /measures they had agreed to try.

The ward nurse leader noted this, and hopefully she will follow up on it. This reflects unacceptable conditions. We also discuss briefly whether it is coercion / use of restraint when they still put up the bedrail at night. The patient does not oppose this, perhaps she feels safe when it is up/when she has it?

**New situation:** They are unsure whether they have any coercive situations/situations where they use restraint. They have a number of situations where staff expresses 'feeling painfully uncomfortable' because they lead patients who do not understand. We often do what we think is right, but is it right for the patient? One example that was brought up: the use of safety rail on the bed to prevent the patient from being able to lie down during the day. It is painful that the patient was not allowed to rest when she wanted to. We discussed a little.

They highlight this situation: 95 year old lady, dementia, delicate/gentle, quiet wife of a fisherman with three sons who are also fishermen. She is always helpful to others. She has been a few years at a nursing home. She lies down on the bed during the day. Is she bored? Or is she tired? The staff does not want her to sleep too much in the day and be awake at night. We discussed 'who is the patient,' what can she attend? Provides input on 'active care' and asks if there are volunteers in the community. Pas has a lot of her abilities intact /can do much, but clearly needs things to be organized and done in the same way. They agree to: 1) • Not to put up the bed rail 2) • Activate the patient in the morning, be creative: for instance use 'reminiscence suitcase' (this, they had not heard of before, but thought it sounded fine and thought that it was easy to make), playing solitaire with her, play cards ... etc

### Other things?

The nursing home is about to downsize the number of residents because they will rebuild and extend the Nursing Home. They state that they have few patients where they use restraint. We recommended that they should discuss thoroughly the patient they would take up the next time and note in the staff diary. We asked them to consider whether it was a restraint situation.

L. says thank you and says that she will not be coming to further coaching sessions due to illness and surgery.

Based of	n your <u>experi</u>	ences today,	please indicat	e where on th	e scale you w	ould rate the	Nursing Hom	e's contextual	ability to learn using
the decis	sion- making	model? (re. I	PARIHS)						
1	2	3	4	5	6	7	8	9	10
								X	
Weak									Strong

# Appendix 6 Inquiry methods, data material and mode of analysis

Datasources	Material	Preliminary analysis?
Focus group interviews:		(Ref Hsieh et al 2005)
FG 1; 26.09.11	Verbatim transcipts (vbt): 14 pages	Yes – conventional content analysis
	Observation note from O.F; 1 page	
FG 2a) ; 01.02.2012,	Vbt, 8 pages	Yes – conventional content analysis
related to seminar content		
FG 2 b) 04.02.12, related to	Audiotape 62 minutes	Yes – direct content analysis according to facilitator role & attributes
the coaching		(citations with minutes ref to audiofile)
'Template-session'	Procedure description & minutes from	Agreed reflection notes- templates made, both short and extensive
25.04.2012 – agreed	meeting	version; 1) short> writing the notes 2) extensive → containing
understanding of PARIHS		explanations to be used as a frame of reference
elements for refl notes		
FG 3, 28.08.2012	Vbt, 22 pages	Yes – direct content analysis according to all elements in PARIHS,
(2- days 'role play' teaching	<ul> <li>Stines process notes, 15 pages</li> </ul>	summarized in a table
and coaching the	Reflection notes TEM& Stine, 2 pages	
intervention)		
FG 4, 04.02. 2013	Vbt, 24 pages	Yes – direct content analysis according to facilitator role & attributes
	EM's process notes 4 pages	
Creative Hermeneutic	7 individual images	Yes – 'conventional content analysis'
Knowledge Co-Production	1 collaborative 'summation' image	
20.06.2013	<ul> <li>Vbt, 9 pages of stage 7; facilitators</li> </ul>	→ <u>facilitators</u> creating key themes based on transcripts from FG- 4, own
	narratives of collaborative image	experiences from facilitating 3 seminars and 18 coaching sessions,
	Summary of facilitators' individual stories	individual images and stories (stage 1&2) and the collaborative process
	related to their images (stage 2), 5 pages	of agreeing to common key themes (stage 5&6). These are illustrated
	(0.51.0.55)	and written in a collaborative image.
Creative Hermeneutic	3 individual images (S, EM & TE)	Yes – direct content analysis; promoting and prohibiting factors related

Knowledge Co-Production 30.09.2013	<ul> <li>1 collaborative 'summation' image</li> <li>Vbt, 6 pages of stage 10, all participants nattatives related to the collaborative image</li> </ul>	to 'leadership' and 'culture'  'researchers' and facilitators' collaborative co-creation of key themes according to promoting and prohibiting factors related to 'leadership' and 'culture' elements of PARIHS (stage 9), and co-creation of a collective image bringing all themes together (stage 10)
2 days- seminars in 12 NHs	<ul> <li>12 reflection notes</li> <li>Registration of attendants, room, skills etc according to template for seminar sessions</li> <li>9 summarized evaluation reports from attendants (using a simple questionnaire made by team 2)</li> </ul>	Nearly finished summarizing quantitative data and started content analyzing text elements from the reflection notes
Coaching sessions, 6 x 12 sessions = 72	<ul> <li>72 reflection notes</li> <li>Registration of attendants, room, leader present etc according to template for coaching sessions</li> <li>9 summarized feed-back reports /'narratives' from attendants at the end of last coaching</li> </ul>	Nearly finished summarizing quantitative data and started content analyzing text elements from the reflection notes.
Process notes from 'experience-sharing meetings' with leaders; 03.09.2013 and 23.09.2013	<ul> <li>03.09; 9 pages produced by TEM and 'confirmed' by facilitator team 2</li> <li>23.09; 9 pages produced by TEM and 'confirmed' by facilitator team 4 and Øyvind Glosvik (affiliated researcher related to leadership issues)</li> <li>23.09; 2 pages additional notes from Ø.G</li> </ul>	Not yet, however, interesting when the observations and narratives are compared to the reflection notes from the leaders' NHs. Especially related to how and why they had chosen 'close' participation or not.

Quantitative data, 24 nursing homes	Descriptive data (size, beds/pts, new/ old, district/ rural, dementia friendly or 'generic', staff data)	Only done some random checks to compare baseline information with summarized reflection notes, finding for instance that one of six NHs that reported zero restraint cases at baseline, changed their opinion
Baseline & 7 month follow- up	2. Questionnaires:  • Restraint and psychotropic drugs  • Person centered care  • QPS Nordic  • CMAI	during the course of the first coaching session. They started out saying that they had no cases involving use of restraint. Instead; they had chosen a "difficult situation". However, they ended concluding that the situation actually encompassed use of restraint. From the descriptive data from the seminar reflection notes, I find that at this particular NH a high percentage of the staff are RNs (and men; five out of ten in total attending the seminar). However, unlike the other NHs in the sample, none of them had attended further education related to the new revision of the Patient Rights law regulating use of restraint ( Kap 4 A) or continuing education of Dementia Care (ABC'en). We have not yet got the follow-up data, and it will be interesting to see if use of restraint has increased since baseline.
Field observations & interviews	<ul> <li>EM &amp; S's field observation notes and interviews with staff and leaders from 4 Nursing homes post intervention, and 1-2 NHs per intervention in 2<sup>nd</sup> round</li> </ul>	These data have 'been included' in the creative session 30.09 in terms of being backdrops for EM and S's images and key themes, and for their participation in the co-construction process of the collective image and agreement of key themes.

### Appendix 7 Themes explored in FG 1

## Themes to be explored in Focus Group 1

- their views and experiences of education and coaching as means to implement knowledge in NHs
- what factors do they think may influence whether, or not, education and coaching will be helpful towards a team of staff members in a workplace
- their thoughts and feelings related to their own participation in the MEDCED project, including:
  - o expectations to yourselves as actors in this process/ research
  - o expectations to us as the full time researchers: for instance; how should we prepare the education manual (protocols)/ material? To what level of concretisation? What support material and other types of support will best enable them in the KT process? Or in their facilitating role during the six months of guidance at the workplaces?

And what about examples; should they be ready made, or optional based on their own experience in order to increase the credibility / authenticity in the education situation? This is also a question regarding the need to develop testable interventions, and particularly within a RCT- design. What do they anticipate the limitations could be, and how could these limitations to bespeak the intervention to the local context influence on their teaching performance, in terms of not being able to add their personal "touch"? (see also table XX):

# Appendix 8 Clusters of statements from the first FG

Tro på opplegget EI -1	Forventninger; egen rolle og ansvar	Forventninger til oss; vår rolle og ansvar	Innhold, rammer, mål, læreforutsetninger og metoder i undervisningen og veiledningen
<ul> <li>PP og eksempler vi kan bruke i vår undervisning</li> <li>Vi kan komme med innspill til hvordan vi kan gjøre det underveis</li> <li>Opplæringen rundt</li> <li>God støtte i at vi er to</li> <li>At det er Ingelin som har kjent på dette som skal veilede</li> <li>Ganske fiffig at vi får undervisningen først, og at vi skal jobbe med veiledningen og at vi er en gruppe som kan hjelpe hverandre</li> <li>Veiledningen underveis når vi har kommet i gang med opplegget () at det er en kontinuerlig dialog underveis</li> </ul>	Egen usikkerhet:  ➤ Usikkerheten min er mer knyttet til egen kompetanse ift å ta de gode eksemplene og på den måten gjøre det forståelig for dem jeg skal ut og lære opp  ➤av og til redd for at jeg ikke skal treffe e som jeg skal undervise når jeg ikke selv har følt det i samme grad.  ➤ Viktigste prosessen min er å bli trygg på at svaret ligger hos de der ute, men jeg skal hjelpe gjennom en prosess slik at de finnertror det ligger litt slik(?) i meg, at jeg i løpet av dette året må finne ut  ➤stor utfordring i seg selv å	Veiledning – på veiledning: veiledning blir jo ofte å stille de rette spørsmålene. Og det tenker jeg vi får god hjelp til når vi skal gå gjennom den veiledningen. mitt ansvar å kjenne på hvor min sko trykker, og hva jeg trenger svar på, og så be om veiledning i de settingene. at du kjenner modellen og får veiledninge i den () at du føler du mestrer den før du	"Så det er kanskje ikke de gode eksemplene våre som er cluet i dette?"  ➤ det handler om troverdighet når du står foran noen og skal komme med noen eksempler som helst skal komme fra virkeligheten. Jeg har ikke lyst til å være en tro kopi av Ingelin som springer rundt å forteller hennes eksempler. Det må være enten egenopplevde eller så må du bruke deg på en annen måte() vet ikke om det nytter å lese seg opp på all litteratur om demens heller. For det er virkeligheten det handler omom de troverdige eksemplene  ➤har tro på det vi skal undervise om

...håper og tror at det vi arbeider med her kan overføres og brukes i andre sammenhenger. Jeg ser det som en av mange mulige modeller som et alternativ til den kurssendelsen – til hvordan du kan stimulere fagmiljøene i kommunehelsetjenesten til å se sine muligheter.

### Om undervisning og veiledning som middel til implementering?

- Nøkkelen at det er kombinert – undervisning og veiledning som går over et halvt år. (..) .. tror det er et suksesskriterium.
- At de får være sammen med andre på arbeidsplassen og diskutere fag og andre ting om hvordan de skal få dette til.
- For det høres veldig bra ut, hele opplegget rundt det

### Eksempel fra ABC'en som

få delta i et slikt stort forskningsprosjekt- å få hjelp med den biten også ...og at vi kan være med å skrive eller publisere fra deler av dataene.

### Trygghet i:

- ..å være to
- Vi en er gruppe som kan hjelpe hverandre
- at Ingelin som har kjent på dette skal veilede
- Kommer til å støtte meg veldig til at jeg har en bakgrunn med veilederutdanning som jeg nå kan ta frem i praksis.
- ..veiledning alltid mer spørsmål enn svar
- ...de som sitter med opplevelsene i praksis, og det er jo kunsten å få de opp

### kan selge den ut

- ...at man ser litt på hvor mange blir det egentlig som skal være sammen de to dagene, og hvilket pedagogisk opplegg passer best for en slik gruppe?
- ..veilledning i så store grupper ..(..) og den blir det viktig at dere ser på om dere kan finne noe smart. ...(...)
- ....(dere må ) ...se på om ..(..) alle i 16'gruppen får undervisningen og kjenne til dette, men at man går tilbake til 8'er gruppen slik at det er dem som får tilbudet om veiledningen.

### MÅL:

- Den undringen å få den frem er kanskje det som blir det viktigste.
- ..de som sitter med opplevelsene i praksis, og det er jo kunsten å få det opp.

### Rammer:

- ➤ Det kan fort bli en gruppe på 25 30 mennesker.....(...) faktisk en stor klasse
- ... hvor mange blir det som egentlig skal være sammen de dagene, og hvilket pedagogisk opplegg passer best for en slik gruppe.
- ...blir jo veldig mange, så der blir jeg litt sånn ...jeg har ikke erfaring med veileder i en sånn stor gruppe. Hvordan vil det fungere hvis vi sitter 20 personer i ring?
- Ikke så farlig med undervisning ...(..) ..men med veiledning i så store grupper, den blir utfordende og den blir det viktig å se på om dere kan finne på noe smart.

### oppleves å fungere godt:

- Materiell med gode kasuistikker, som er praksisnære (... forfatterne) kan mye teori, men skrevet på en veldig god måte som er veldig praksisnært.
- Gjør noe i fellesskap ... oppdage at mye av det de gjør er rett, kan oppdage hvorfor det er rett og sette ord på det ...er et løft, og kanskje spesielt for ufaglærte og hjelpepleiere..

### "man føler jo et veldig ansvar for at dette skal gå bra, ikke sant, for at dette skal lykkes":

- ..lurt å forberede seg for det er en del man kan lese seg til ....( ..) ... føler jeg vi har ansvar for når vi er med på dette prosjektet, som en sånn grunnmur.
- For meg er det todelt, jeg kjenner veldig på forventningene med å møte praksisfeltet og delta i opplegget ut mot dem. Men også forventningene til å skulle delta i et forskningsprosjekt og at jeg skal klare å følge en mal som gjør at også det skal komme ut solid og godt nok.

# "utfordrende, men samtidig veldig spennende"

gleder meg til dette, og tror jeg kommer til å vokse

#### Metoder

### "å tenke bredt og høyt":

- At en både tar med grunnleggende ting, og også at en kanskje innleder dagen med å si ...(..) ...hensikten er at alle skal få utbytte av disse to dagene, derfor kommer kanskje noe av dette til å være helt grunnleggende og repetisjon for noen, og så er det viktig for noen andre. Og så er det kanskje deler av dagen som kanskje litt avansert for noen, men sånn må en slik dag være for at alle skal få utbytte av den.
- ...det som kan bli litt forskjellig (fra ABC'en) ......er at modellen er ny for alle, og at vi relaterer det til det praktiske situasjoner....og at alle skal bidra inn fra den posisjonen de er i, inn i situasjonen. Så det å vinkle det slik kan oppleves at det blir litt mindre konfliktfylt.
- Så det å få bidrag fra alle og på en måte legge listen lavt, og at alle må bidra for å få utbytte. Det er jo

veldig personlig på dette. Har bare alt igjen for å være med på dette.

- blir interessant, også fordi .....(..) målsettingen er jo å støtte de som hjelper demente til å gjøre en endra bedre jobb, og det blir bra tenker jeg.
- > Tror det blir veldig nyttig og spennende.
- Veldig kjekt å få være med, og litt spennende og utfordrende.
- ...tror jeg det skal bli veldig gøy.
- Deilig å være litt i gang og kjenne litt på spenningen. ...føler meg veldig heldig som får være med og synes det skal bli spennende.
- ...selvsagt hovedbudskapet med kvaliteten på dette med tjenestetilbudet til de demente, men jeg har også med det med læringsbiten -

kjempeviktig altså!

bruke norske ord til forklaringer og samtidig legge det på et nivå som gjør at det er interessant også for dem som kan mye fra før.

# Ingelin: er det spiselig å gi veiledning til to mindre grupper - i to omganger på hver avdeling?

jeg tenker at for veiledningen sin del og for utbyttet av veiledningen for de ansatte så er jo det et gode å kunne tilby det. Jeg ser på det som en god løsning.

### Tro på opplegget EI -2:

- ➤ God løsning å kunne tilby veiledning til i to omganger på hver avdeling
- Høres veldig bra ut, hele opplegget rundt det. (....) å dele opp og ha to timer etter hver andre høres genialt ut fordi det er ikke så lett for dem å gå fra.
- ..å dele i to grupper slik at man ikke behøver så mye innleie

### **Erfaring med IT-studien som**

med kunnskapsomsettelse i praksis ....har en ide om at det er mange flere muligheter som kanskje ikke blir brukt, og at det er kjekt å være med på en slik start

### avdelingsleder:

- ..ble en veldig drive i avdelingen følte jeg fordi det omfattet alle. Ikke bare sykepleierne som skulle på kurs og så lære opp de andre etterpå.
- ➤ Var som en stor eske med puslespillbrikker. Sykepleierne hadde rammen, og så hadde hjelpepleierne det fokuset, og de ufaglærte mange brikker rundt forbi.....(...) ble et mye tydeligere bilde når vi fikk sitte tverrfaglig sammen og diskutere beboerne vi skulle se nærmere på.

### Læreforutsetninger

"Det er jo klart at det er jo en utfordring i seg selv at kompetansenivået er så vidt forskjellig".

..er der et stort spekter av komptanse, og du skal jo liksom treffe alle. .....(..) ja det er helt sikkert ufaglærte i den gruppen, og så er det jo hjelpepleiere og omsorgsarbeidere og også høgskoleutdannede...(..)...alle disse skal jo ha et utbytte av disse to

	dagene og også støtte til å gå videre.
	▶ Jeg har kjent på med ABC'en at det kan være utfordrende og at jeg kanskje må tåle at noen kunne ønsket seg litt mer av noe, mens jeg vet at jeg skal treffe så mange andre også.
	▶ pluss at det er jo slik hverdagen er() at de som hjelper pasientene, de er fra ufaglærte til høgskoleutdannede med videreutdanning() og alle deres observasjoner og tiltak som de iverksetter blir verken viktigere eller mindre viktigere.

Appendix 9 FG- 2; facilitators' skills and attributes mapped to PARIHS facilitation elements

	ROLE
DOING FOR OTHERS	ENABLING OTHERS
Episodic contact	Sustained partnership  AE: Jeg uenig å bruke ekspert, vi har brukt faciliator, eksemplene, de veldig flinke på sine svakheter, snakke ikke om seg selv men om andre, skape et oss, vi som facilitatorer, med i et oss, og skape forandring, da stresser ikke være ekspert men ikke skape et gap ikke nå opp til  L: tenker på avdelinger med pasienter med demens, de som jobber der se de i forgårs, kari gjør det på den måten ola på den måten, lett og se fraksjoner, de klarer ikke å få pasientene til frokost, se hverandre og styrkene og dele, se ikke minst at pasienten er en vesentlig del av dette, pasientene et middel og ikke hovedpersonene, få de til å bli oppmerksom på de tingene, når ferdig hun mange gode ideer, aldri tenkt på at per likte oss, få de til å bli oppmerksom i hverdagen, de er eksperter så fort ikke tenkt over disse tingene, suksesskriterier spør hverandre mer, greit at nå det går så greit inn hos per, når jeg der inne at det er kan
Practical /technical help	<ul> <li>Developmental</li> <li>59.00 H:Det jeg tenker vi skal få lov å være i denne rollen og formidle noe som får folk på banen, og det setter i gang noen prosesser som bevisstgjør folk. Så at den kompetansen, og det tror jeg vi skal ha stor respekt for, den kompetansen vi møter der vi kommer, at der sitter det masse kompetanse og det skal vi ha respekt for. Vi skal på en vi være formidle slik at kompetansen blir brukt, vi ikke belære og ydmyke i møter vi presentere, være bevisst i rollen</li> </ul>

 K: de å løfte de vi treffer på, la dem forstå hvor viktig jobb de gjør, oppriktig sier hvor viktig jobb de har, det går opp lys for dem, er det sant har slik jobb, mange har videreutdanning, spesialisthelsetjenestene kan være like mye spesialist, mage spesialutdanning løfte dem sine eksempler og erfaring viktig jobb og funksjon

### Didactic, traditional approach to teaching

- A: de som vi skal ut til, må ha et utgangspunkt, fått påfyll, de må summe om noe, ett tema
- H: ja da en stund, og så summing
- 54.27 L: jeg føler de to første dagene er du er en slags foreleser, og så går du over til å være veileder etterpå. Men om du er en ekspert, det ligger vel mer i det ordet enn vi er i denne sammenhengen. Men hvordan du vil bli det vil vel gjerne være at dette kan du mye om, og så skal du dele det på en forhåpentligvis pedagogisk, fornuftig og spennende måte som rører og som gir energi i salen
- 58.02H: det jeg tenker på, Som underviser har vi et tema, og nå har vi har fått tema av dere. Me har fått et opplegg og det vi skal formidle., det er issuet her, det vi skal formidle, jeg tenker jeg så må jeg bruke meg selv som person i dette uten at jeg legger til mer sånn, og litt mer streng enn vanlig, men ellers har vi jo også retningslinjer og læringsmål vi skal forholde oss til

### Adult learning approach to teaching

- 43.38K: tenker pauser generelt, det rom for mer struktur i dagen gode avbrekk.....(I ABCen).., det var lagt opp til tid, det har kjempe effekt, behov å snakke på tvers ikke for mye plansjer rom mange ikke så mye på kurs, trenger pusterom og reflektere dveles med mye av dette og tenkes igjennom. Derfor ikke så mange plansjer
- (TE:notatblokk utdelt for å skrive) T: .....eller forventing veien videre, at de kan skrive noen stikkord til veiledning eller noe
- 49.00 H: ....en hatt litt sånn, sum to minutter med sidemannen, hva forstår du med dette? Jeg kjente på det – for å få den forståelsen, ikke bare rase igjennom, og så er jeg ferdig med den. Det var litt slik den første seansen. Men at det også der gis rom og få tid til dialog Hva betyr dette for deg? gir dette mening for deg? To minutt hadde vært okey, i alle fall bruker jeg det en del for å brekke av slike seanser
- H: Her mange ulike grupper noen høy utdannelse, her være obs, det kan være noen veldig dominerende og har det i bakhodet, fin vinkling vi kan bruke, fokus på egen preferanser, finne egen preferanse og tilnærming, sett så mange ganger, dette er jeg i hvert fall god til, da sikrere og ta neste skritt, hva slags interesser og hva du er god på, da får vi alle på banan, oppleve og ta ekspert og tar ordet også kan andre

•

External agents	Internal / external agents
Low intensity – high coverage	High intensity – limited coverage

SKILLS AN	D ATTRIBUTES
DOING FOR OTHERS	ENABLING OTHERS
Project management skills	<ul> <li>T: vi må ha en dialog fremover oss i mellom, vi jobbe i et team, jeg kjenner Marta veldig godt, vi har undervist en del i lag og vi utfyller hverandre kjenner hverandre godt. Jeg har tenkt en del plasser at dette passer veldig godt til Marta her kjenner ikke jeg meg så trygg. Og dette er sikkert mer naturlig at jeg tar. Så slik må vi føle litt på stoffet, vi må bli trygge på stoffet etter hvert, men at vi jobber litt som i et team i den prosessen</li> <li>T: som lærer på høyskolen, sugen på å være tolærer, det som er så bra med dette Å ikke jobbe sammen nå i vår ville for meg vært helt utenkelig</li> </ul>
<ul> <li>Technical skills</li> <li>55.07L:*() bekvem med foreleserrollen?) Jeg lever av den( latter) og hvis ikke hadde det vært forferdelig</li> <li>57.29T: Jeg kjenner meg trygg i undervisningsrollen, og vet at jeg helt sikkert kommer til å ha det veldig kjekt de to dagene. Men det med ekspertbiten , det er noe jeg må jobbe med meg selv o. hvorfor valgt akkurat meg på høgskolen. Vi er et lite fylke, Mange kjenner folkene på høgskolen – mange kan mer om demensomsorgen enn jeg, jeg ung og blåøyd, ikke så mye yrkeserfaring, det tenker jeg tenker er personlig ting, det at jeg</li> </ul>	<ul> <li>Critical reflection</li> <li>T: For her blir ikke utfordringen å holde tiden, men å engasjere og berøre de vi skal snakke til., det må komme innenifra</li> <li>K: Et dikt kan passe inn, Kirsten Solheim sitt dikt, gripende treet indre kraften jeg et menneske mister mye av treet bladene faller av, veldig sterkt, det lett alle kunne brukt hvis man ønsker</li> <li>M: synes det var veldig ok at det var lagt inn pauser rett i etterkant av fortellingene, for de var såpass sterke og så gripende de fortellingene det kan røre mange. Derfor viktig å ta de pausene etterpå, det så ut som del av tanken også med Ingelin sitt opplegg.</li> </ul>

vært ute i demensomsorgens ABC. D det å kjenne meg trygg, en personlig prosess som jeg må gå gjennom, det jeg vet er at jeg tror jeg har mer å bevise enn når . Men jeg kommer til å ha det med meg

- 59.50 B. Jeg fylle på litt, utgangspunktet satt sammen som små team, hensikt med det, noen fra høyskolen og noen fra utviklingssentrene, vi som lille teamet og må bli godt kjent med hverandre, styrker og svakhet, vi kjenner hverandre ikke så godt dynamisk slik at jeg kan være trygg på Liv, hvor er du, så det at dette er en prosess, første møte, det blir veldig ååå... så kommer det etterhvert, da er vi ekspert, det har med trygghet
- 61.03 AE ....skape et oss, vi som faciliatere med i et oss, og skape forandring, da stresser ikke være ekspert men ikke skape et gap ikke nå opp til
- •

- L: 41.58Både og i det du rører noen og åpner opp noen strenger som du kan få noe ut av ikke 100% enig, Kanskje sitter du der med en gruppe som er vanskelig å berøre, og berører du de med historien og får en merverdi etter historien, da kan du kan kanskje ødelegge litt ved å ta pauser. Så pedagogisk er det to sider av den saken.
- M: Jeg ser det og, men skal en nytte den må det være en oppfølging av de reaksjonene som du evt får. Hvis du ikke legger opp til det så tenker jeg at du bryter det like likevel. Så enten må det være være en fortsettelse av det som rører. Går en bare bare videre i slidesene og fakta tematikken,så bryter en det. Så det kommer an på hva vil en bruke av de reaksjonene. Om de skal bare komme eller om en skal jobbe med dem
- H: 43.00Her kan det være veldig mange slags reaksjoner du får i, kan være veldig personlige, og ikke så veldig egnet til å ta opp i en debatt slik som dette. Kanskje egnet mer når har en pause, og kunne snakke med noe du kjenner, å ta den bearbeidingen. og ta en viss oppfølging der og da hvis du kan ta noen mer prinsipielle ting som du vil dvele ved og ta videre. Men det kan være en del personlige følesesmessige ting det kan være lurt å snakke bare to og to om

TE: ja det er vel slik at de skal få notatbok, og at det kanskje hadde vært en måte at de kan skrive ned noen tanker og reaksjoner, og vil de dele de er det greit, og vil de ikke er det også helt fint

- T: ja eller forventing veien videre, at de kan skrive noen stikkord til veiledning eller noe
- 58.10 H: Det jeg tenker vi skal få lov å være i denne rollen og formidle noe som får folk på banen, og det setter i gang noen

prosesser som bevisstgjør folk. SÅ at den kompetansen, og det tror jeg vi skal ha stor respekt for, den kompetansen vi møter der vi kommer, at der sitter det masse kompetanse og det skal vi ha respekt for. Vi skal på en vi være formidle slik at kompetansen blir brukt, vi ikke belære og ydmyke i møter vi presentere, være bevisst i rollen 61.20 L: tenker på avdelinger med pasienter med demens, de som jobber der se de i forgårs, kari gjør det på den måten ola på den måten, lett og se fraksjoner, de klarer ikke å få pasientene til frokost, se hverandre og styrkene og dele, se ikke minst at pasienten er en vesentlig del av dette, pasientene et middel og ikke hovedpersonene, få de til å bli oppmerksom på de tingene, når ferdig hun mange gode ideer, aldri tenkt på at per likte oss, få de til å bli oppmerksom i hverdagen, de er eksperter så fort ikke tenkt over disse tingene, suksesskriterier spør hverandre mer, greit at nå det går så greit inn hos per, når jeg der inne at det er kan Marketing skills **Giving meaning** • B: 35.17 det som var flott var denne Per som en rød tråd, det må i hvert fall være felles, det var veldig bra, de eksemplene delt her i går gripende og flotte – så er det noe med at vi kan bygge på det heller enn å bytte ut 49.00 H: ja og ikke bare så ut i i luften. Jeg tenkte på en annen sak, mye monolog først seanse, hadde det gått an i den, at en hatt litt sånn, sum to minutter med sidemannen, hva forstår du med dette, Jeg kjente på det – for å få den forståelsen, ikke bare rase igjennom, og så er jeg ferdig med den. Det var litt slik den første seansen. Men at det også der gis rom og få tid til dialog Hva betyr dette for deg? gir dette mening for deg? To minutt hadde vært

okey, i alle fall bruker jeg det en del for å brekke av slike seanser

.

### Subject/technical/clinical credibility

- AE: Et godt utgangspunkt få slides og det vi skal gå igjennom før og heller, slik at det blir slik det skal være, da kommet langt, jeg veldig glad for at vi skal samles en gang til, ikke bestem hva, men hjelpe oss og bli tryggere på dette
- L: ....og så må vi i hver enkelt gruppe arbeide med hvordan vi legger det opp, vi kan få brukerstøttepamfletten, og kapittel i den boken, godt når holde på i 6 timer, må være trygg på å si det i 6 timer, skal være overbevisende 12 timer. Og så må det avklares ift opplegget hva de kan spørre om
- K: kl 13.30 du må bli trygg i plansjene, at vi blir trygg i plansjene, må ikke bli for mange, det er ikke så mye som skal, at rom for at de kan spørre litt, tror det at tid til å fordøye det litt, flette inn lov å flette inn, eksempler, jeg har prøvd å undervise i ABCen og ser at jeg blir blir fort komfortabel med noe selv om du ikke har laget det selv. Så jeg er ikke så redd for det, men jeg føler at jeg må skjønne mer av den beslutningsstøttemodellen selv
- K: Trygg i det du sier, du må kunne stå for det du forteller, hvis det kommer spørsmål fra salen. Men det er trygt i dette opplegget at vi er to stykker, vi er to hvis en ikke kan svare, at vi kan dele dagene, og støtte hverandre i å få det til, jeg ser ikke så mørkt på det, Jeg tror når vi får tid til å fordøye det litt vi har fått, og vi får en ferdig versjon så går det bra.
- T: Nå må vi holde oss til manus, og spenningen i dette ligger i hvor mye som kan gjøres for å gjøre stoffet til sitt eget. Det hadde vært fint å få tilbakemelding om på samlingen i august. jeg foreleste i ABC, og da jobber jeg slk at jeg tar innlysark gjør

### Flexibility of role

- 39.02 A: Jeg eksemplifiserer når jeg underviser så bruker jeg også
  mine egne eksempel. Men det er greit å få speile det i denne
  gruppen. Kan jeg bruke det eksemplet mitt, er det eksempelet
  hensiktsmessig her, slik at jeg har tatt det ut her før jeg går ut og tar
  det ut på Husnes eller Eidfjord, at jeg bruker mine historier
- T:40.48 da er vi tilbake til i sted, at vi har et Detaljert manus som vi samtidig må gjøre til vårt eget, Da er det veldig bra at vi er på detaljnivå, men samtidig også får vite hva er prinsippet i den historien, hva skal være mitt mål for dag 1,. Det er godt med detaljene, men det er noe med å ha en retning om hvordan lykkes jeg i forhold til det. Så det hadde jeg et veldig behov for etter undervisningen
- 43.46 B: vi får jo en kjempeutfordring pedagogisk med de menneskene vi berører, å se de. Hvem er de, og får vi noen reaksjoner må vi kanskje snu om litt og tenke Hva gjør jeg nå? Altså tenke alternativ, istedenfor å bare dure i vei. At du måtte stoppe der og da var det naturlig og så avrunde litt, og så ta en pause. Eller at du måtte ta en pause, der er jo ting vi vil oppleve underveis, det er jo en del av dynamikken i hele opplegget
- 43.38K: tenker pauser generelt, det rom for mer struktur i dagen gode avbrekk, merket godt demensomsorgens ABC – var vektlagt i ABC opplegget, lang matpause godt å få sagt så lenge så mye sette av tid, det var lagt opp til tid, det har kjempe effekt, behov å snakke på tvers ikke for mye plansjer rom mange ikke så mye på kurs, trenger pusterom og reflektere dveles med mye av dette og tenkes igjennom. Derfor ikke så mange plansjer.
- L. summing bruker du ofte når du foreleser som foreleser god

til mitt. Men her blir spørsmålet hvor mye som kan bearbeides, og om jeg har bearbeidet for mye. For her blir ikke utfordringen å holde tiden, men å engasjere og berøre de vi skal snakke til., det må komme innenifra

- 27.48 M: Det er klart vi må det, en ting er å gjøre stoffet til sitt eget, for meg trenger jeg å jobbe videre med min trygghet og kompetanse inn i det som Arnt Egil sa vi må vite hva vi snakker om,
- 35.59 K: Det med Per er fint, fort kjent med han t,. Men jeg kjenner for min del at jeg kunne brukt busken, men kanskje bruke en person jeg har opplevd fra min jobb, det hadde vært mye lettere enn om jeg skulle prøvd og tenkt Ellen eller hvem det var.altså ,at poenget det samme, prøvd å beskrive tap og rolleendring når får en sykdom og sånn, men for meg ville det vært lettere å koble til en jeg kjenner
- 57.40 K: Ja det var det jeg tenkte litt på i går, hvorfor kommer akkurat vi her. Noen vet at er med på forskningsprosjekt, noen vet kanskje ikke så my om det som sitter i salen. Lederen vet det og vi vet det jo hvem vi er selv, men hvor mye kan vi si om hvorfor det er akkurat vi kommer dit, vi kommer plasser kjenner både A-E og meg og de lurer kanskje på r kommer dere nå sammen, hvorfor har dere slått dere sammen fra to forskjellige arbeidsplasser osv

oversikt over hvor de er, når følger de med og hvor er de, øynene vrenger seg – gi energi summing greit,

- ser hyseblikket, da summe
- 58.02H: det jeg tenker på, Som underviser har vi et tema, og nå har vi har fått tema av dere. Me har fått et opplegg og det vi skal formidle., det er issuet her, det vi skal formidle, jeg tenker jeg så må jeg bruke meg selv som person i dette uten at jeg legger til mer sånn, og litt mer streng enn vanlig, men ellers har vi jo også retningslinjer og læringsmål vi skal forholde oss til. Men når dere snakker om ekspert ekspert eller ikke, (TE: det var et dumt ord av meg å bruke det var mer som et eksempel)
- 62.00 H: Her mange ulike grupper noen høy utdannelse, her være obs, det kan være noen veldig dominerende og har det i bakhodet, fin vinkling vi kan bruke, fokus på egen preferanser, finne egen preferanse og tilnærming, sett så mange ganger, dette er jeg i hvert fall god til, da sikrere og ta neste skritt, hva slags interesser og hva du er god på, da får vi alle på banen, oppleve og ta ekspert og tar ordet - også kan andre

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### Realness / authenticity

- T: For her blir ikke utfordringen å holde tiden, men å engasjere og berøre de vi skal snakke til., det må komme innenifra
- T: jeg tror mye av det vi gjør er rett. At vi får noe og at vi må jobbe med det fordi det er et jo tema som engasjerer alle oss. Sånn sett

tror jeg ikke det er vanskelig i den forstand. Men det det er litt som at du skal forholde deg til manus, og hvilke ord bruker jeg. Jeg vet at jeg vil I jobbe meg gjennom manus på den måten, med hvilke ord jeg skal bruke og hva det er naturlig for meg å ta opp. Og det er klart å få feedback på feedback på det på samling i august kunne vært veldig okey

- M. Ja jeg satt og tenkte på det i går når bildene kom opp at det blir helt unaturlig for meg å bruke de i bokmål. Men vi kan omsette selv, det er gjerne det letteste hvis ikke naturlig for de som lager bildene og for de kommunene vi reiser vil det være unaturlig å komme med bokmål
- 22.00 M: Ja jeg tror kanskje ikke at det betyr så så mye for dem som vi skal presentere det for. Men for meg, jeg vil mye lettere kunne gjøre det til mitt eget hvis jeg kan si det på mitt eget målføre. Men jeg kan godt ta det over i nynorsk form selv, det vil jeg tro vi kan klare helt geit.
- B: Da jeg tilbake til rolle og bakgrunn, Jeg er litt der, jeg har ikke den lange praksiserfaringen som K, du er rik på praktiske opplevelsene, kanskje på denne sist samlingen kanskje noen kunne dele alternativer til den buketten så kunne vi få høre og kanskje kunne vi brukt det inn og kanskje vi da kunne få velge en av de og gjøre til vårt som vi følte kunne være lett å fortelle videre. Var bare et lite tips
- H. ja kjempelurt, velge en av de og gjøre det til vårt og lett og føre det videre

### **Appendix 10 Interview guide FG- 3b**

### Themes explored in FG 3 b)

- How do you feel prepared now; individually and as a team?
- What have contributed to this? How do you think your own participation has influenced? What about IT, AMÅ and mine roles? Other things?
- Retrospectively; can you think of other things that might have been more helpful? Or could have been done differently?
- 'To believe in the model' (said in the last interview) how might this impact on the facilitation job that shall take place? Your own anticipation of learning and coaching exists different perspectives and views. Have you discussed this within your team?
- The bodily experience of having been taught the content during the role- plays; how has this impacted? As said in the last interview:
  - o how useful it was to feel in my own body how it felt to be met or safeguarded in the coaching session according to the different roles they had played
  - o they wanted to spend the next months to prepare within their own team; what have they done, and what did they experience? → time and resources spent, and who's? How has you employer contributed?
- Challenges in Action Research projects; ensure equality in the relation between researchers and co-researchers how do you regard the power relation between you and us? Our aim has been to create/ facilitate a democratic process, but the question is to what degree we have been able to achieve this?
- Related to your present insight of the MEDCED facilitation role; how would you describe the skills and attributes that is required for the role? And how is this compatible with the skills you already possess?

### Appendix 11 FG -3 b; second coding

# Second coding FG-3b – step 2

The aim for the pre-intervention study is to prepare For this attempt to use direct content analysis based on PARIHS to analyse the FG pre-intervention, the **context** here represents the seminars, mostly held at hotels, between us researchers (Ingelin leading the teaching and coaching sessions, Tone Elin leading the FG's during the sessions, as well as planning and communications related to the facilitators participation in action research during the whole process, and postdocs Eva-Marie and Stine moderating and observing all sessions. Evidence in this setting is the **decision- making model and the teaching material.** 

Category	Statements
Believe in the model	A: " because it is important themes being talked of, and I believe the wards we are going to visit will profit from this. I have also talked with others saying; 'my gosh, can you also come to us?' So it is the whole package including the coaching that I believe will hit (treffe?) the field of practice".
Good way of being introduced to teach and coach the decision-making model (TFT)	H: "had several meetings where we have been introduced to the model, we have given feed-back which have been taken in account. The model have been revised, and we have had sufficient time to consume, read and understand (sette seg inn i)"
	B: " we have got good tools. Actually, we have got this recipe, this model"  L: 2 we have been included to prepare as much as we possibly can prepare,. Then the proof of the pudding will come when we will be starting."
	T: " it has been a very nice way of doing this. The different methods of first being presented, thereafter having to coach and then been given feed- back before we again retried. So this way() we have been pushed"
Had anticipated more introduction to the theoretical underpinnings of the	H: "I think it would have been important to get some pillars, some seminar with both dementia and the Patient Rights Act so that we knew that all of us had the basic underlying theoretical foundation"

model	
	M:" yes, because I think we were not recruited because of our knowledge of dementia or the Patient Rights Act, and that is what we are going to teach() or one could say that this is something people going into this have to catch up with themselves. And I do feel that we have been advised to where we can find relevant literature. So, I suppose it depends on the level chosen, where one thinks that the participants have ability to learn this knowledge on their own"
The purpose of our role; teaching the answers or posing the questions?	L: "I think the pedagogy is the reason for the presence of the University colleges() and I think both when we teach, and certainly when we coach, we shall pose the questions and they (the staff) shall come up with the answers. Then, of course it is helpful with a lot of experience from caring for persons living with dementia and having taught related to these questions. But I do not think this is the most important, because if so, they (the project leaders) should have recruited the people from elsewhere"
	T: "I do agree, it is the pedagogy so you are not going to have the answers, but on the same time the underpinning theoretical knowledge can help to pose the good questions. To open up for new perspectives etc. I do not know how easy it is to prepare for this, but I saw when Ingelin (gave feed- back when they coached in a role play she saw nuances)when we were blocked and only discussed, she could clew upbut she has this competence within her, and I do not know how easy it can be learned by just meeting another time."
Safe and accepting environment -	L: "I feel that we wish each other well, and that we have a very good atmosphere"
	T: "it has been a group where it has been easy to exceed the comfort zone. But on the other hand, we have been pushed to do this, and this has been a very positive and varied way of doing learning"
	M: we have been heared and our feed- back has been taken into account"
	H: "you ( <i>researchers</i> ) have conveyed a strong sense of acceptance of who we are, and that we are a competent team. Hence, I have got the feeling of 'wow, somebody believes in me even though I pose a whole lot of stupid questions – at least I think() so here I think you have succeeded and that has been

	very important.
Solidarity – being a "we" achieved	T: "it has been very important to be meeting each other"
through acceptance and of being	H: " the social yes!"
together	T: " and the way things have been organized"
	M: " our opinions have continuously been asked for, we have got feed-back and felt it has been taken on account. If not we surely wouldn't have" (A continued)
	A: "it has been a very good process, where it was not clear from the outset what we should participate in, so these days have been very important to make us safe. That we have had these role-plays and been able to try teaching different parts of the program have been very exciting and a good learning for my part"
	M: "participating in the environment and getting to know you have been a personal growth and learning. But also participating in a research project like this, so I think it is very exciting. And very enjoyable. I am looking forward to our meetings, and everything has such a positive charging ( <i>lading</i> )making it enjoyable event though we know that it will be busy"
	H:" been a great process that I am grateful for taking part in"
	B: " and then I think you leaders have been exceptional, and I think this has been very important for us having a good time. The way you have met us and included us. So I think this has been of crucial importance"
Ownership achieved by participation to	B:I have appreciated very much the invitation to be included (in the revision process of program and
revise the education material and	methods), because then you own the in a different way because you are more active() and then you
methods – a way to get it under the skin	own it a little yourself also. So I have found it inspiring to be allowed to continue working with this"
	T: "yes, and the way we have been asked for advice. Surely it has been frustrating for Ingelin because we have sometimes teared it apart. But I think that is due to us having got an ownership to it because we are the ones going out to present it. So I think that has been important."

	T: "related to the intervention, I feel that we have got an ownership and have been able to influence and that it (the content of the intervention) is something we do together"
	H: "yes, because you have opened up for feed-back, and this has made us at once going into details, sometimes maybe too much. But this is due to us knowing that next time we are going to transfer (pass on) this, and then we must own it and we must understand it.
Thorough feed-back on text necessary to ensure fidelity in the trial protocol	B: "sometimes I have thought 'what nonsense and fiddeling', and sometimes I feel that we have been nagging() but this is surely because at a certain time this has been necessary in order to get to know this stuff properly, you know? So it has been a process() but also a test for yourself to see if you have understood this correctly. So this has been an enjoyable way of learning."
	L:" such processes (of detailed revisions on sentences and sequences) is often painful, but none the less absolutely necessary, not the least I think, when we are the means for the things that are going to happen() what I am thinking of is that we are a bias, and in this (trial) everything must be the same() so therefore, even though we are learning in the process of teaching, we must ensure that when good results appears in the third Nursing Home, may be much better than the two previous ones, it is not because we have got at totally different concept. Therefore, as I see it, it is important that we have removed as much inaccuracy and nonsense as possible before we are doing this. And this is challenging and painful, but if we are going to manage this everyone must contribute with all their feed-back."
	B: "but it has been fun to! That is what I mean, and absolutely necessary."
	H: "however, we will hopefully improve our performance during the process (of delivering the intervention), and this is some of the things we are going to describe in the reflection logs"
Exciting to participate in a research	M: "I find it very exciting to participate in a research project like this"
process	
	H: "and then I find it very exciting to participate in such a research project where we have been invited to
	influence on the process and on how the final result shall be. This, I really enjoy having participated in all
	these visions. I find this way of working very exciting, and also developing and enjoyable.
Individual learning necessary to be	M: "now I have got what I can get from this preparation, so now I have to put in more work to integrate it

comfortable to transfer to others	in myself so that I can express and tell this in the seminars when we are teaching"				
	L: "we can have a 'preparedness to act' (handlingsberedskap), but what is happening will happen, and this we cannot be prepared for. But of course, the safer we get, the easier to tackle the things that happens". T: " now it is all about working it in and be sure to have it under the skin"() and also, we share the text between us according to the one of us feeling most at ease with the different themes".				
	H: "now we are inspired, and we get in under the skin (when meeting and teaching in the role-plays)				
	M: "of course I have felt, and still do, the need to read more related to the themes to be sure enough when the questions come and the discussions are blooming"				
Safe being in a complementary team	M: "and here (when questioned) I feel that we can support each other. T feels safer concerning literature related to dementia() I do not to what extend I can use time to read the things I had planned. I suppose it is something I just have to live with"				
	H:() and I know A has a lot of competence and experience and I am very lucky to be in team with A"				
	T: another bonus is knowing that I have a partner I feel safe with, and that is nice companion when we travelit means a lot, and we feel that we complement each other".				
	H: "I suppose I have this 'looking- forward- to and resenting' –feeling standing in front of the dive, but most happiness I believe.				
	And the fact that we are two to rely on in this process.				
	B: "I believe this is going to be very good. I feel sure that we will succeed when we are able to work more with it"				
Coach to use a tool, not oracles presenting the answers	T: I always feel I know too little, however, we are meeting them for two days, and then afterwards when coaching. So this is about risking. We are not going to be the oracles either() so this is also something				
	we are going to work on B: so the frames are there, and the tools, so I suppose it will be meeting them (the staff) that will be the				

	most challenging H: "that we are humble towards the staffs' competence. That we include and respect it ('spiller på den'), and do not express ourselves as like we are a panel of experts that are coming to 'pull something down their heads' (directly translated). But on the contrary, that this is a tool they will be introduced to work with, and that we together will try to find solution".	
Flexibility and courage to meet the unexpected	T: "we have more control in the education settings, therefore I am more anxious about the coaching, on these nuances. We experienced it a couple of times (in the role-play) what is restraint and where etc. Also when we shall indentify problems"	
	H: "I do agree because this coaching is very hard to predict, the seminars we can control ourselves() we could have had more; that is - not to be prepared for every situation, but ( <i>knowing</i> ) that such situations can happen, and how to meet and tackle such situations"	
	H: "I think, in the coaching situations, then it is a relation to people and staff we have not met, and a culture we do not know. This, we can never be prepared to. But this is also part of the excitement. However, we have this luggage now, and now we must just take the risk and, as you said, dive into the unknown. And this is not possible before we are there"	
the aim of coaching	L: "And I think this is very important concerning the coaching. We are not giving the answers. We do not have to have all that competence. Our role is to try to evoke what they know, so that they can find the solutions they all can agree to and live with. Because it is they who have that competence. What we are going to teach is the decision- making model. We have learned this model, and eventually we will get it under our skin".	

• Also find additional categories when reading the whole material. One surely is the data related to not feeling included and having created communicative space for them as researchers. But to-morrow I will also look for other elements I might have missed, and then start writing on how Ihave used this.

### Appendix 12 FG- 4; Interaction between the facilitators and the nursing homes –sorted by Facilitator teams

All facilitators are nurses with long experience from either nursing homes or nursing education. Several have further education/specialized education (what's the correct term?) in elderly care, dementia care, leadership or education. All of them have also continuing professional education (CPE) within different fields of elderly care and/or management and ethics. Six possess a master's degree (MA).

Teams	Facilitation Team 1	Facilitation Team 2	Facilitation Team 3	Facilitation Team 4
Skills & attributes/	F a)> 50 years. MA in social	F c) >50 years. Further ed in	F e) >50 years. Further ed in	F g)>40 years. MA in social
Professional status &	science, further ed in	elderly/dementia care and	elderly/dementia care,	science, organisation and
backround	leadership. Working	leadership. CPE in ethics	person centred care and	leadership. Working
	experience from acute	and law related to use of	leadership. Long working	experience from nursing ed,
	ward, administration and	restraint for persons living	experience from nursing	bch level? Present position:
	education. Further	with dementia. Long	home sector, both as nurse	leader/practice developer,
	education within	working experience from	and leader. Last sixteen	regional centre.
	professional supervision	nursing home sector, both	years as head nurse of a	
	(coaching –what's the right	as nurse and leader.	dementia friendly nursing	Fe) >30 år. MA in nursing
	concept Bengt?) Present	Present position:	home. Present position:	science. Working
	position: practice	leader/practice developer,	CPE in dementia care at a	experience from psychiatric
	developer, regional centre	regional centre. Special	regional research and	ward, practice
		responsibility for the CPE	development centre.	development and teaching.
	<b>Fb )&gt;</b> 50 years. MA in	related to restraint and		Present position: teacher
	nursing science CPE in	ethics in her region.	<b>Ff )</b> >30 years. MA in	bch nursing education.
	leadership development.		nursing science. Working	
	Working experience from	<b>F d)</b> > 50 years. MA in	experience from elderly	
	hospital, elderly care,	education. Working	care and practice	
	practice development and	experience from ?	development. Present	
	nursing education. She has	Present position: teacher	position: leader/practice	
	some experience as	bch nursing education.	developer, regional centre.	
	research assistant in RCT-			
	studies. Present position:			

	chair of further ed in elderly care.			
Practicing the role during	Shared the teaching based	Aiming to share the	Shared the teaching based	Aiming to share the
the Seminars:	on previous experience	teaching burden half and	on previous experience	teaching burden half and
	with the particular theme,	half, the team rehearsed	with the particular theme,	half, the team rehearsed
	and confidence related to	the seminar text, and they	and confidence related to	the seminar text and most
	particular methods.	decided on the examples	particular methods. For	of the methods before
	Due to F b's long	and methods to use. Based	instance Fe said that: 'for	deciding who should what
	experience and teaching	on the rehearsal, they	me, not being a pedagogue,	parts. They agreed to what
	skills, she undertook most	decided and prepared for	I am not used to engage the	examples they should use,
	of the lectures, whereas F a	approximately half the	audience during teaching	either from their own
	was responsible for the	seminar each. They also	sessions. However, that's	experience or from the
	methods involving creative	had taken the time to be	the strength of my partner,	examples provided in the
	action and participation	confident of how much	and therefore, it's great	MEDCED education
	from the attending staff.	time they could use in each	having the possibility to	material, and then divided
	Also, Fa appreciated the	session. They found this	teach in a well-functioning	the sessions according to
	wealth of examples F b	preparation useful, not only	team as ours' Her partner Ff	where they could exemplify
	could share from her	because they had limited	said that due to relatively	by using their own
	teaching and practice	knowledge of their	less experience from the	examples. As they both had
	development career in	respective competence and	dementia field, it was a	teaching experience, they
	elderly care.	experience. But also due to	great relief to lean on the	participated in activating
		F c's longstanding	longstanding professional	the staff during the two
	Due to Fb being ill, they had	knowledge of the field of	and leadership experience	days on equal terms. They
	less time to prepare in	the intervention based on	of his partner. Also, he was	practiced according to the
	advance and it was not	her role as regional practice	very pleased that she	plan, with one exception.
	before the last afternoon	developer related to CPE in	agreed to teach the	Due to what F g described
	that F b could attend the	dementia and ethics. F d	sequence where they	as an 'extremely
	seminars. Therefore, after a	had limited experience	should use a small shrub	challenging and
	period of searching for a	from the elderly care, but	and gradually when telling a	uncomfortable experience'

substitute, Fa had decided that she would take the responsibility on her own. She was very relieved when she learned that Fb could join her, however, she also found it somewhat stressful that they only had an hour car trip to reorganize the plans. As she said, when driving to the first seminar we hardly knew each other, but we had to put on a brave face, and it went amazingly well. They are both very pleased with their team performance, and they laugh a lot and enjoy their partnership.

Being experienced with both teaching and practice development in elderly care, Fb was at ease with the text/ manual that she found was 'nothing new, albeit systemized in a good way'. She was comfortable with number of powerpoints, and used own felt confident in her teaching and coaching role. They shared the responsibility to activate the audience.

Fe added a short lecture of the different kinds of dementia at the beginning of the seminar because she thought that 'it fitted in nicely in the beginning acting as a common backdrop to the rest of the seminar'. She said that 'she thought it was good for them to get this lecture in addition to the rest, but she said she only presented this orally. She did not make additional powerpoints.

story cut the leaves to

demonstrate the losses

persons with dementia

experience as the disease

progresses. Even though

awkward, he said he would

she found this method

have felt much worse.

This team mainly used their own examples depicting similar episodes to the one described in the MEDCED – manuscript. They both

from the first seminar, when she should demonstrate the loss using the shrub, her partner agreed to take over the task for the next two seminars. F e said she had not even thought that she would feel this exercise so painful, and that was why she had not tried to role play it in advance. She was very relieved that being in a team, she had the possibility to swop the task. If not, she said, she simply would have skipped the method for the rest of the

seminars.

examples when describing similar episodes as in the text. However, being aware that she now participated in a research project she emphasised the fidelity aspects, and said she had been conscious to not 'creating bias by saying or doing additional things'. The fact that they were told during the pre- intervention period 'what we were allowed to, or not' made this situation acceptable for her. However, she also added that 'it is clear that our personalities might impact on the intervention. By using our own examples and through this, our personality is integrated in what we say'.

Her partner having worked as a leader, agreed and followed up on Ff's experience with the different leaders. She also told that she had tried 'to underlined the importance of having worked in nursing homes, and being able to understand and share the staffs' experiences from the daily life in nursing homes.

Ff referred to her experience as a head nurse in order to ease the situation that this team found difficult (re the dialogue presented in frame XX). This team met three very different leaders, and returned several times during FG-4 to the difficulties they found having to teach the standard text underlining the leaders importance to establish a transformative culture for change etc. In NH one, the leaders was 'extremely dominant', but at the same time they said this was perhaps good at this particular nursing home because she was leading a staff described as highly

	soften her message and		skilled and strong	
	consciously tried to support		personalities. In NH two,	
	one of the ward leaders,		the leader was young and	
	after being told by the head		inexperienced, leading a	
	nurse that this leader had		staff with mixed	
	struggled and been		professional competence	
	opposed by her staff		and ethnic background.	
	because she had ordered		Before the seminar started	
	them to participate at the		she told the facilitators she	
	seminar. So, she said,		found the leader job very	
	'that's what happens when		challenging, with the	
	you know something of the		presence of both informal	
	culture before you teach'.		leaders and severe conflicts	
	,		among some of the staff	
			members. The third NH was	
			described as 'fantastic' both	
			in relation to the dialogue	
			the leader had with her	
			staff and also concerning	
			the atmosphere in the	
			nursing home as a whole.	
			The facilitators found this	
			very challenging especially	
			because of the setting 'with	
			only one leader against the	
			rest of the bunch'.	
Practicing the role during	They alternate	The team drives	They alternate	This team has also long
the coaching sessions	systematically, one	approximately 2 – 3 hours	systematically, one	travel distances, and they
	coaching and the other	in average to each of their	coaching and the other	know each other well from

writing notes summing up the staffs' agreement on measures to do before the next coaching.
The following coaching session start by the referent reading the notes from last session, and then she continues coach while her colleague writes the notes.

Related to their **PAR –role**, they also alternate writing the reflection notes based on the PARIHS elements. The referent from the actual session writes the notes and sends them to her partner for comments before the sends the note to me.

three nursing homes. They have found it purposeful to alternate driving and coaching. They drive on small and challenging roads in the winter, and therefore they drive to and from the same places as a way of increasing the confidence. Due to the long hours in the car, they sum up and write the reflection notes while driving. Therefore, because of this system, they always coach and drive to the same nursing homes, and the passenger does the writing both during the coaching session and for the PAR reflection notes on their way home. They scan and send me the handwritten notes.

writing notes summing up the staffs' agreement on measures to do before the next coaching.
The following coaching session start by the referent reading the notes from last session, and then she continues coach while her colleague writes the notes.

Related to the PAR- role, they discuss and mostly F f writes the notes on the

writes the notes on the computer and send them. They seem to find this part a bit time consuming, and have so far only sent one third of the notes. However, they have promised to write catch up, and I have proposed that they can send handwritten notes if they find it easier to do just after the coaching sessions are completed. I have also accepted to receive a sound file if they find it easier to record and talk.

being colleagues in nursing education. They have no regularity when it comes to sharing the role as coaching and referent, but as F e said, we decide according to the person feeling for it on the actual day (det blir liksom bare til etter hvem som har dagen).

F h also says (FG-4) that it somehow turns out that she writes the **PAR-reflection notes** on her computer after they have discussed it on their way home.

How do they facilitate	They felt insecure and		During the coaching
reflections when coaching	wondered what to do in a		sessions, they consciously
in the nursing homes?	situation when only staff		build on their different
	not having attended the		competence. They have
	seminar showed up. They		experienced that they
Interaction with the	chose to cancel the session		supplement each other
context?	and come back next week,		well, Fg with her
	because 'this was not		organisation and
	according to the intention		management background
	of the intervention'. They		and Fh using her practice
	also felt frustrated with the		experience from psychiatric
	'lack of understanding of		and elderly care.
	what this intervention is		
	meant to be' and of the		Started to do 'rounds'
	'lack of structure in their		asking everyone to share
	heads'.		their reflection after having
			experienced several times
	Another place they report		that they exaggerated their
	of a fantastic feeling of joy		own activity as a response
	and achievement related to		to little or none feed- back
	'a real success story' were		from many of the
	some of the staff managed		participators. In addition to
	to change a very difficult		making them insecure in
	situation despite lack of		their role, they also
	support from both their		experienced that there was
	colleagues not attending		no connection between the
	the coaching, the medical		level of active participation
	doctor and the patient's		<ul><li>that is, talking and</li></ul>
	relatives. Due to the		sharing, and the way the
	understanding and		staff had fulfilled and

decisions taken in the coaching session, the patient had got completely different life. To everyone's amazement she had started to take part in activities instead of being aggressive and protesting, was happy and singing and even initiated card plays because she loved to compete. This fundamental change had turned the opposition, and according to the faciltators also the support and belief in the coaching. This is the only place that staff opt to attend the coaching session during their spare time.

worked between the sessions. After having practiced 'the rounds', Fg connects activity in sharing and reflecting to experience from this kind of coaching. The less experience, the less they participate in collective reflection. But as she says, they have come to realise that this is not a sign of the staff not being reflective. More that they have not previously been given the possibility to sit down, share and being coached to find common solutions to challenging patient situations. Therefore, they need help to get started and this team uses two strategies. First, by asking very specific and practical questions. Second, by referring to the seminar where they addressed the value of working person centred, doing the same things when caring for the patient, being allowed to

		talk about their own feelings and so forth. They find that using the themes from the seminar as a common frame of reference helps in pointing a direction for them to start their reflections together
		with their colleagues.
Confidence in the role of		
facilitating the MEDCED		
intervention		
Reflections on sustainability		

## Appendix 13 Excerpt of dialogue of the facilitators' ethical reflection concerning the use of a dog picture in relation to intimate care

# Dialogue between the facilitators related to a 'difficult situation'; luring or not to use the picture of the dog to ease and avoid restraint in a bathing situation?

**Context**: FG -4, at the end of the interview and prompted by a question from Stine, postdoc in the MEDCED. *Stine's question and comments are written in italic*.

- **Fa)> 50 years**. MA in social science, further ed in leadership. Working experience from acute ward, administration and education. Further education within professional supervision (coaching –what's the right concept Bengt?) Present position: practice developer, regional centre
- **Fb** )> **50** years. MA in nursing science CPE in leadership development. Working experience from hospital, elderly care, practice development and nursing education. She has some experience as research assistant in RCT- studies. Present position: chair of further ed in elderly care.
- **F c) >50 years**. Further ed in elderly/dementia care and leadership. CPE in ethics and law related to use of restraint for persons living with dementia. Substantial experience from nursing home sector, both as nurse and leader. Present position: leader/practice developer, regional centre. Special responsibility for the CPE related to restraint and ethics in her region.
- **F e) >50 years.** Further ed in elderly/dementia care, person centred care and leadership. Long working experience from nursing home sector, both as nurse and leader. Last sixteen years as head nurse of a dementia friendly nursing home. Present position: CPE in dementia care at a regional research and development centre.
- **Ff ) >30 years.** MA in nursing science. Working experience from elderly care and practice development. Present position: leader/practice developer, regional centre.
- **F e) >30 år.** MA in nursing science. Working experience from psychiatric ward, practice development and teaching. Present position: teacher bch nursing education.

St,: I have a question related to restraint, and it has to do with this decision-making model because we can see from some of the interviews we have done with the leaders, and also from some of your reflection notes, so you have been asked to coach them to find trust-based measures (directly translated and the same concept as used in our law. As I see it, it correspond to the way Brendan uses Person centred care) rather than restraint. That's the point of the whole project. And for me having visited the nursing homes and talking to the leaders, I have found that it has not been easy to describe what is understood by this concept 'trust-based'. Might it be that trust-based measures could sometimes be informal restraint? For example, I was told about a patient where they experienced great difficulties during bathing situations. The patient showed very clearly that she opposed being bathed, and then they had found an old picture of her dog, long time dead. In order to be able to clean her, they showed her this picture to distract her in the situation. So in a way this picture functioned like a sort of a decoy to make it easier to have her going to the bathroom. There, she was distracted by this dog, and with two staff members, they managed to wash her when they distracted her with that dog. And this dog was connected to the person and her personal history, so in a way...have you come across similar 'border-situations' as we have started calling them within the MEDCED team? Not the ones that are formally defined as restraint according to the law, but still exceeds some limits of pressure, luring or inappropriate motivation or what we should call it. Have you got any similar situations when you have been out there?

**Fe:** we have come across such things, but this concerns music. For me, I also know this from my practice at a Dementia friendly ward. I can remember one, she had to play the accordion for one patient, and actually, he became calmer. I participated in the bathing as the number two person not saying anything. He really calmed down because this was a very severe situation concerning agitation. So it is not unusual that these things are used, and sometimes you sing for the patients.

**Fb:** yes, and leading by hand is also allowed – that you guide the patient by holding his hand.

Fc: I also think that, well, I have thought that as long as a ... Thus, this with distraction, that is what I think it is, it relates to whether it is acceptable in order to get something done, for example for the patient to have her intimate (genital?) care done when she can sit there being concerned with the dog. That a staff can talk to her about the dog, and where they were etc. I recognize the situation. And then the other nurse can get the morning bath done that must be completed. If not, the alternative is to hold her hands, because it has to be done sometimes. But one should be very aware of what one does do. And I know I said when I was out teaching in the seminars, that it is OK to be smart. Thus, we must use our ingenuity and professionalism in finding solutions. So it is OK to be smart, but you are never allowed to lure. There goes the limit. When you lure someone in order to have

something done, then you have surpassed the limit. But you can be smart in relation to whether it's better to do it at night, for example? Is it better to do it after breakfast? And if using the image of the dog is done to make it easier for the patient, so ...

Fa: yes, but when are you smart, and when are you luring someone?

Fc: Yes, that's what you need to consider. If the protest is still there, and she discovers that 'gosh, you doing the intimate care (?) and that is exactly what I do not want, and here I am sitting being occupied with the dog.' Then you have lured.

**Fa:** but I think you have lured her from the outset

**Fc:** Yes, and that's the difficulty

**Fa:** I am thinking that this is a violation of the principle (in the first place)

**Fb:** what we have seen in many of the problems being presented, it's related to coercion in care situations. And many of the coercive situations have disappeared because they care (wash/bath?) for patients the evening instead of the morning, or when patients are ready for it, and I think it is much better than ... in other words, I found the situation with the dog to be way over the limit ..

Fg: it was ridiculing, it was deceiving

**Fe:** but now I just ask, here in the group, but if you reflect on what it is in the situation that the patient protests against when it comes to having this genital care done? And what it is about the situation that the patient resists? And not until you have found answers to that can you actually do something with the 'luring image'. It could be that patient wanted a diversion and therefore ..

EM: (postdoc) Yes, and therefore it does not have to be so painful?

**Fe:** Yes, it can be many things, and therefore I think that one must really ask oneself actually, what the reason behind the reaction is. And then you have to consider the dementia illness, and you need to know the patient very well, so ... it might be ethically right, and ethically problematic. It depends on how the dynamics in the situation are when you talk about this dog, because you've certainly care situations where you let a patient talk

about his farm life and then bathing situation floats, or you sing. And that's sort of a diversion too. If that is what makes the patient thinks it is ok to be bathed at that time.

Fe: yes, I and don't think that's wrong.

**Fb:** it was really at the limit, and I cannot let anyone talk me away from that in my vocabulary. They show her the dog every day when they wash her. And very often I experience that it is not the care they object to, but it's time it is done. So if they could find a solution to that ... and it's like Fugelli (a well-known medical doctor and writer) say that the nurses are so hygienic that it's almost beyond the limit. The patients should be washed in the morning, and preferably before breakfast. So I .....

Fe: yes, I can follow that, and it may well be that there can be many measures that can be better than this, and I can also tell it that it feels uncomfortable when I get told that story. I can certainly sit and feel that. But considering the whole of the situation, there might be nurses that succeeds.

**Fb:** but it might not be a restraint situation she describes, maybe rather an ethical situation, right? For sure, there is an ethical dilemma to what happens there.

Fe: but then it becomes a bit like the things with dolls, too, that they use teddy bear and doll, and this is also very much used if it means that the patients are in on it.

**Fb:** But is there not a slight difference? When you forget that ... if you have a sense of security, and if you play music? But when you show your dog while something else is happening?

**Fe:** but have you not experienced this in feeding situations? Well, now I ask only to initiate a discussion in the group, I have not a very strong opinion. But if you in a difficult situation bring something that gives the patients a feeling of security/ comfort, but I agree that there is a difference...

**Fb:** But it depends on the situation

**Fe:** yes, I agree

**Fa:** yes, and with this dialogue we are talking about ... and when you begin with a picture here and then you are doing something there (showing with her hands)..

**Fb:** yes, and that for me is a violation

TE: ok Fc, you will have the last word and then we will have to prepare for landing this FG

Fc: Yes, I completely agree that this is the borderline. And I find it very interesting that this situation comes up here because I know this situation. Because I know that they really have gone into this situation. And I know they have an assumption that there is a history attached to this fact that this person, regardless of the manner in which one approaches, this person has some experience that makes whatever means, whether you sing or what, the patient here will be protesting. And it has something to do with this person's story. And therefore how they can carry out the care in a way that causes minimal trauma to the patient. And it is actually the dog picture they have found which leads to at least protest. And they have an assumption about a history that makes .... there are many things that have happened in people's lives that, no matter how one approaches, the person will be protesting

TE: S, do you want to add something?

S: no, I think we need to stop if we shall have time for coffe and buns, and then start the discussion related to the role of participant researchers......

END OF DIALOGUE BETWEEN THE FACILITATORS RELATED TO THE DOG-PICTURE

#### Appendix 14 Summary of the facilitators images and individual stories from mini-cycle 7.

Summary of the facilitators' stories when describing their images from the Creative Knowledge Co-construction the 20<sup>th</sup> June -13

As indicated below, only two themes had both facilitators present. The summaries and translation of the stories are made by me, and audited by the facilitators and my co-moderators.

Fe (her partner was sick): has divided her image in three to illustrate the differences they met in terms of culture and leadership in the three NHs.

She underlines the influence of leadership and culture, and describes how meeting three different leadership performances/roles and cultures has resulted in her believing that only two of the three NHs will possibly use the knowledge and the TFT- model in the future. She relates this to the leadership role, and says that in the nursing home having an uncertain and indistinct leader, she has no belief. In that home, the staff is depicted as many different persons that were not being led.

In the other two nursing homes, she has used a shining sun to illustrate the potential. Both places the leader is present and engaged. At one of the NH she is placed in a boat together with her staff, but she is clearly the captain holding the steering-wheel. In this home, the staff explicitly expressed the wish to continuously working to ameliorate their practice, and they have already applied the model to solve a situation that was difficult but did not include restraint.



Re the facilitator role; she underlines the importance of adapting to the very different working cultures they meet, and has illustrated this by a picture of a dog wearing sun glasses and umbrella, and attached the word 'guest'; this is to symbolise the need to sometimes use an umbrella, and at other times sunglasses. She concludes saying that the overall impression is that the staff members are "always on their way" (written in the middle of the picture) wanting to improve the ways they are working.

Fd (partner with Fc): says she has been thinking of prohibiting and promoting factors according to the three categories of PARIHS, and created three circles accordingly.

<u>Leadership:</u> She has illustrated three different roles corresponding to the three NHs they coached:

Fc (partner with Fd): have thought a lot about building the relation and she sees this as a two-step process; first, the relation between the facilitators and the staff, and secondly, within the staff, that is the relation between the colleagues and how they relate to their patients. Respect, safety, feeling secure in the situation is components of this relation building. She has used a hearth to underline the importance of taking care of, and perform the role ethically sound. The education material and content has framed the facilitation job and provided a tool they could use covering central issues like the law, the knowledge etc. However, she challenged that the workplace culture was not covered as one of the themes. She has clearly seen the vital influence of the culture and leadership role, and how different these elements have been in the three NHs.

The leadership is important; she illustrates the needs to set goals and visions for the future with a picture of 'Soria Moria', and says that the leader needs to respect and acknowledge her staff, and at the same time 'act the leadership'- that is taking the lead!

For the facilitation process she has used different symbols;

Feathers = creativity; Flowers = growth and prosperity: she has deliberately chosen different flowers to underline the different persons they meet. Like different species they may need different care and attention.



Hearth = taking care of, consciousness, own beliefs and attitudes and in the culture; Horizon = Soria Moria – the visions far ahead, but she says that the fundamentals needs to be safety.



or insert common measures resulted in changed practice.

Picture of a relation between the child and the dog = between all, re text overFor the creative process: Astrid said she got an 'AHA' when working with the image saying: "I haven't thought about this before, but I think now that being acknowledged is a confidence building measure in itself"

**Fa** (partner with **Fb**: the model is good and provides positives learning experiences for those taking part. Great engagement at the seminars, less participants at coaching; this resulting in her believing that one of the NH will possibly use the model in practice, a second may perhaps use provided that the leader engages. "She needs to 'go in'". For the last she has no belief that they will continue using the model.

She also describes some of the things as magic's happening when the staff realized the effect of using the TFT- model, the fact that going through the process of common decisions and reaching shared decisions of how to react

She describes her facilitation role as walking the road together with the staffs, and she used a picture of a road to illustrate this.

Fg (her partner not present, had just given birth): she has illustrated the different elements of the intervention;

<u>The TFT- model/'the package':</u> has been useful and positive for the process because we have worked with the same themes over a longer period. The content provided a good basis for the role we had and the work we did as facilitators

Role and attributes as facilitators: for her own part, she would have liked to be more knowledgeable about restraint, but she is uncertain if this was important for the result, and says that it is probably more a personal feeling she had. She has used red and yellow colours to

illustrate the creativity, the progress, the joy. But also splatters of grey colour in-between, and tried to depict how they as facilitators experienced the staffs' willingness to improve their practices.

She has used a picture of a road to illustrate that her team had to travel long distances; this being a challenge both in terms of time and resources, but on the other hand possibilities because they had used the time to reflect on both their roles and experiences from facilitating the intervention in the different NHs. A picture of a room is pointing to the physical room they used for coaching – all places in the NHs but sometimes they had to use the staff's "office/ planning room? This had disturbed the coaching process.

<u>Culture:</u> illustrates the variations between the individual participants within the NHs, and how this influences both the collective learning processes and their role and performance when facilitating.

<u>The leader:</u> how the leader perform her role – whether she is active or passive- influences the results. If she is unclear, insecure, and not present, it is difficult to achieve changes. This is also influenced by the way the leader was working. Follow-up and documentation between sessions were necessary to avoid chaos and to ensure that agreed measures were followed by all the staff. The leader either had to do this, or delegate the tasks to a named person.



<u>External influencing factors:</u> she says she has not found a picture to illustrate external influencing factor, but says she can clearly see that 'Coordination reform' ("Samhandlingsreformen") has influenced the leaders' workload in this period.

### Appendix 15 Details of knowledge production activities in mini- cycle 8 –Spetember

	Cre	ative	e Hermeneutic Knowledge Co-Production 30 <sup>th</sup> September 2013:	
			ACTIONS ACTIONS	TIME
Tone Elin	1.	We a)	elcome & introduction to aims and actions for the day; knowledge co-construction as a preparation to the 'mapping- to- PARIHS-session" with Brendan 20 <sup>th</sup> October b) plan the workshop at CARN in November	10.00 – 10.10
Eva-Marie, Stine &Tone Elin		b)	Draw a paint/modeling/ bits and pieces/( not magazines? – I think you would like me to drop this, isn't that so Brendan?) Construct an image of the essence of the data- things that resonated. Not just write words unless in a poem, but can include words if they want to supply.	10.10 – 10.30
Marta, Astrid, Hellen og Bodil		c)	Share experiences related to revisions they will make of the content and methods in seminar and coaching session for implementation in round two.	10.10 – 10.30
Pair of 'researcher' & facilitator		d)	Work in pairs of facilitator and researcher; Researchers show and explain – the facilitator writes down everything that is said without interruption as long as it takes. Eva- Marie & Marta, Stine & Astrid, Hellen & Tone Elin. Bodil writes the facilitators themes from last session on 'post-it' notes and organizes on the wall them like they in the last session	10.30 – 10.40
Pair of 'researcher' & facilitator		e)	Still in the pair; decide the key themes from your written story. Result of the process = three stories and three sets of key themes. NB! Write key themes on 'post-it' notes. Bodil joins one of the pairs.	10.40 – 11.10
Pair of 'researcher' & facilitator		f)	Show the creations and read the narratives and the key themes without interruptions. All three sets. Post key-themes on the wall (together with the facilitators notes from last session)	11.10 – 11.30
All		g)	LUNCH.	11.30 - 12.15
Eva-Marie, Stine &Tone Elin		h)	Presentation of key themes supplied with data/ preliminary analyses from field observations, reflection notes and meetings with leaders.	12.15 – 13.30
All as 'participating researchers'		i)	Collaboration; look at the key themes; do we find similarities, differences, something striking etc. What are the commonalities and differences – discuss and then agree of <u>a full set of key themes</u> in the whole group	13.30 – 14.30 <mark>Incl coffebreak</mark>
All of us		j)	Create a collective image bringing all themes back together	14.30 – 15.00
All of us		k)	Plan for the meeting with Brendan 20.10 & our common workshop at the CARN conference	15.00 – 16.00

#### Appendix 16 Testad, Mekki et al (2015) in press; International Journal of Geriatric Psychiatry

Title: Modeling and Evaluating evidence based Continuing Education program in nursing home Dementia care (MEDCED) – training of care home staff to reduce use of restraint in care home residents with dementia. A cluster randomized controlled trial.

Authors: Testad I, Mekki TE, Førland O, Oye C, Tveit EM, Jacobsen F, Kirkevold Ø

#### Abstract

Objective: The aim of this study was to evaluate the effectiveness of a tailored 7-month training intervention "Trust Before Restraint", in reducing use of restraint, agitation and antipsychotic medications in care home residents with dementia. Methods: Single-blind cluster RCT in 24 care homes within the Western Norway Regional Health Authority 2011 - 2013.

Results: 274 residents from 24 care homes were included in the study, with 118 in the intervention group and 156 in the control group. Use of restraint was significantly reduced in both the intervention group and control group despite unexpected low baseline, with a tendency to a greater reduction in the control group. There was a significant reduction in CMAI score in both the intervention group and the follow-up group with a slightly higher reduction in the control group although this did not reach significance and a small non-significant increase in use of antipsychotics (14.1% to 17.7%) and antidepressants (35.9% to 38.4%) in both groups.

Conclusions: This study reports on the statistically significant reduction in use of restraint in care homes, both prior and during the seven-month intervention period, in both intervention and control group. When interpreted within the context of the current climate of educational initiatives to reduce restraint and a greater focus on the importance of person-centred care, the study also highlights the potential success achieved with national training programmes for care staff and should be further evaluated to inform future training initiatives both in Norway and internationally.

#### Introduction:

Dementia currently affects more than 30 million people worldwide, and about 70,000 people in Norway. As a result, a large proportion of people with dementia are submitted to care homes (Engedal, 2010), about 40% in Norway of whom 75% require specific care related to cognitive decline (Ramm, 2013).

There are unique and complex issues involved in caring for people with dementia. These arise from the frequent severe functional impairment, in addition to behavioural and psychological symptoms of dementia (BPSD), which present a particular challenge. These symptoms include agitation, aggression and psychosis (Selbaek et al., 2007) and common symptoms also include wandering, restlessness, repeated sentences, complaining and negativity (Cohen-Mansfield et al., 2007,

Maeland *et al.*, 2013),-arise in 90% of people at some point in their condition and are common in care homes (Ballard and Corbett, 2012, Testad *et al.*, 2007). A particularly complex issue in addressing these symptoms is related to making decisions regarding the care of people without capacity to inform their treatment, and where BPSD is conferring risk to themselves or others. In these situations, care staff is faced with a difficult decision as to when it is ethical and appropriate to use restraint. Restraint may be defined as any limitations on a person's freedom or movement (Hantikainen, 1998). The established international definition of physical restraint (PR) includes any devices, equipment or aid designed to confine a person's bodily movement (Evans *et al.*, 1997). Restraint may also include confining a person in a locked room, use of electronic surveillance and treatment or examination against his or her will (Kirkevold *et al.*, 2003).

The use of PR varies across different countries, with a cross-sectional study reporting a range of use in care home residents from 6% in Switzerland and 9% in the US, up to 28% in Finland and over 30% in Canada (Feng *et al.*, 2009). Differences in legislation around care probably accounts for much of this variance, in addition to the parameters and definitions used by individual studies. In a large Norwegian survey including 60% of all residents in care homes, 78.8% of wards reported using one or more type of PR (Kirkevold *et al.*, 2003), and mean number reported of one or more type of PR being used per resident reported by another study (Testad *et al.*, 2005) was 3.3 at baseline, ranging from 0-29.

This issue has been considered in existing national care strategies for dementia and care home settings. It was highlighted as a priority for treatment and research in the "Norwegian Dementia Plan" 2007 – 2015 (Engedal, 2010), the national strategy "Development through knowledge" (Norwegian Board of Health Supervision, 2010) to improve knowledge in the health sector, and a new legislation which was introduced in Norway to govern the use of PR in people lacking capacity to give informed consent; Chapter 4A, the Patients' Rights Act (Patients' Rights Act, 1999). A national education programme to support its implementation, consisting of seminars for health professionals, information materials, and legal support from regional health authorities, has accompanied the new legislation.

However, an evaluation of the initiative found limited improvement in practise between 2011 and 2012 and failed to provide clear evidence for- and benefit to staff knowledge around the use of restraint (Norwegian Board of Health Supervision, 2013). Also existing evidence based staff training to reduce restraint is insufficient (Mohler *et al.*, 2011), with one recent COCHRANE review (Mohler *et al.*, 2011) identifying only four (Evans *et al.*, 1997, Testad *et al.*, 2005, Huizing *et al.*, 2009a, Huizing *et al.*, 2009b) of 27 published studies meeting the inclusion quality criteria.

There is also a lack of evidence around person-centred care training for care home staff, with only three randomised controlled trials (RCT) (Fossey *et al.*, 2006, Brooker *et al.*, 2011, Chenoweth *et al.*, 2009) evaluating training packages (Testad *et al.*, 2014). These studies have reported important impacts on key outcomes including reduction in antipsychotic use (Fossey *et al.*, 2006) and agitation (Chenoweth *et al.*, 2009). As well as two more recent studies reporting improvements in quality of life measures in residents (Rokstad *et al.*, 2013, Van de Ven *et al.*, 2013).

There is also a need to design educational interventions specifically for long-term implementation (Wallin, 2009, Glasziou et al., 2010), and of clear

and detailed descriptions of these. (Forsetlund et al., 2009, Mohler et al., 2011).

The Modeling and Evaluating eviDence based Continuing Education Program in nursing home Dementia care (MEDCED) study therefore aimed to model, implement and evaluate the effectiveness of a tailored training intervention "Trust Before Restraint" and this study will evaluate the effect in reducing or preventing the use of restraint in care home residents with dementia, reducing agitation and reducing inappropriate use of antipsychotic medications.

#### **Methods:**

Design

This is a single-blind cluster RCT in 24 care homes within the Western Norway Regional Health Authority carried out between January 2011 and May 2013. Care homes were randomised to a seven-month educational intervention or treatment as usual (TAU). The trial is registered at Clinical Trials gov. reg. 2012/304 NCT01715506 and formal approval was obtained from the Regional Committee for Medical and Health Research Ethics in Norway. The trial was planned according to the Consort guidelines and the Consort checklist has been guiding this report of the study.

#### **Participants**

A total of 24 care homes in the Western Norway Regional Health Authority and 274 people with dementia residing in these care homes were included. The Western Norway Regional Health Authority consists of three counties and four Health Trusts, with a total of 83 care homes. All homes in the geographical area were invited to participate following a list in randomized order. Recruitment continued until six care homes were included from each of the four health trusts. The group or ward in each care home delivering dementia care was selected in agreement with the manager. In three care homes this involved two wards. Written consent was obtained for the residents included in the study and from their relatives, when lacking capacity to give informed consent.

Recruitment of care homes and participants are summarised in figure 1 Flow diagram.

#### Intervention

The 'Trust Before Restraint' (in Norwegian, Tillit Fremfor Tvang (TFT)) intervention was based on the evidence of the RRC-intervention and Decision Making Process (DMP) (Testad et al., 2005, Testad et al., 2010), the Norwegian legislation on restraint and best practice for person-centred care

(Kitwood, 1997). The RRC intervention included the DMP model (Testad, 2004, Testad and Aarsland, 2009) which was designed to emphasize and understand the relationship between resident and care staff, to support the identification and effective management of unmet need in order to reduce use of restraint and improve care. A manual of the updated TFT-intervention and the seven-step guidance group were provided to all participating care staff. A teaching manual was provided for the facilitators with verbatim text to ensure the consistency across all care homes. The DMP model was presented as a poster in the seminar and given to all care staff.

The facilitator role in implementing the educational intervention to local context in each care home, has been emphasized when planning the intervention. It was therefore organised in two phases: Phase one (January 2011 to September 2012) involved education and coaching to support four teams of facilitators consisting of eight clinical research nurses, standardizing and adjustment of the TFT intervention through discussions in groups and roleplaying the seven-step guidance group. Phase two (September 2012 to May 2013) consisted of delivery of the intervention within two to four weeks commencing baseline data collection. Similar to the RRC-intervention, it consisted of a two-days seminar (16 hours), followed by one hour monthly seven-step guidance groups in six months to support nursing home staffs to find alternative solutions to use of restraint and psychotropic drugs through teaching and coaching. All staff working at the care home, including non-care staff, was invited to participate in the intervention. It was mandatory for the manager of the care staff to take part. Care homes in the control group received treatment as usual for seven months. Following completion of the seven-month data collection all control homes were offered and accepted to receive the TFT intervention.

#### Sample Size

A power calculation was performed based on 12 clusters in both the intervention and control groups. The calculation anticipated a reduction of 60% (Testad *et.al.*, 2005) in the use of coercive measures in the intervention group and 30% in the control group due to Hawthorne effect. Based on these assumptions in average ten residents in 12 units were required in each cluster to provide 80 % power. Thus we needed 120 residents in the intervention group and 120 in the control group.

Accounting for a 20% dropout rate, the total required participants is 144 in each group, or 288 patients in total. The power calculation was performed using Optimal Design plus Empirical Evidence v 3.01 HML software (University of Michigan).

#### Randomisation and blinding

Clusters were randomized to either control or intervention group. All data in the 24 care homes were collected within one week by research assistants' blind to the study.

#### Outcome measures

Outcome measures were completed at baseline and seven months, through an interview with the care staff. The primary outcome was use of restraint. Use of restraint was determined by a standardized interview, including 14 questions covering PR (5), electronic surveillance (2), medical treatment (2) and use of force or pressure in activities of daily living (5) (Kirkevold *et al.*, 2003). Frequency of use per resident was recorded within a range of at least once a week to several times a day. Restraint use was grouped into structural (seven types, aimed at protecting the resident, such as PR and electronic surveillance) and interactional (seven types, aimed at treatment and care in interaction in care-giving activities) (described in table 2).

Secondary outcome measures in residents were agitation measured by the Cohen-Mansfield Agitation Inventory (CMAI) (Cohen-Mansfield *et.al.,* 1989) and NeuroPsychiatric Inventory (NPI) (Cummings *et al.,* 1994) and use of psychotropic drugs obtained from the participants' medical journal.

#### Additional data

Activities of Daily Living (ADL) were measured through the Physical Self-Maintain scale (Lawton and Brody, 1969), with a total possible score of six to 30. Cognitive decline was measured by Clinical Dementia Rating scale (CDR) (Hughes *et al.*, 1982). This study used the sum of boxes to score cognitive function (O'Bryant *et al.*, 2008), enabling a score from zero to 18, where 4.5 to 9.0 is mild dementia, 9.5 to 15.5 is moderate dementia and 16.0 to 18.0 is severe dementia.

#### Data Analysis

The statistical analyses were performed by the use of SPSS v. 20, except for the calculation of intra class correlation coefficient (ICC), which was done by the use of MIWin 2.30 (Centre for Multi Level Modelling, University of Bristol, UK). We considered that the effect of clustering must be taken in consideration (be adjusted for) when if the ICC had a value greater than 5%.

Logistical regressions were performed to detect differences between groups and adjust for possible confounders. For the primary outcome, three models were used, using three outcomes (any restraint, structural restraint and interactional restraint) at follow up, as independent variables. The group (intervention or control) and baseline score were included in the model as independent variables in addition to variables that were statistically significantly different between the two groups at baseline. For secondary outcomes of agitation, three linear regression models were used to adjust

for differences between groups at baseline in CMAI-score, NPI sum-score and NPI agitation-score (table 1). This analysis was also adjusted for age, CDR sum of boxes score and ADL-score.

#### Results

#### Cohort characteristics

274 residents from 24 care homes were included in the study, with 118 in the intervention group and 156 in the control group. 90-100% of total care staff attended the two-days seminar. The attendance to the seven-step guidance group, consisted of the staff on day-and eveningshift duty on the actual day. Drop-out from baseline to follow-up was 35 (30%) in the intervention group and 42 (26%) in the control group. 197 patients (83 intervention and 114 controls) completed the seven-month follow-up. Flow of participants through the trial is summarised in Figure 1 Flow diagram.

Figure 1 Flow diagram about here

Table 1 shows the characteristics for all the participants at baseline. There were statistically significant differences between the intervention group and control group for age, ADL-score, CMAI-score and NPI-sum score.

Table 1 about here

Number of beds per unit ranged from 8-24, mean 14,1 in the control group, and 8-18, mean 12,6 in the intervention group, with an average of 3.1 and 3.0 care staff respectively, per unit on a typical day-shift. In both groups 2/3 (8) of the care homes had been part of the national programme training in regards to the new legislation to govern the use of PR in people lacking capacity to give informed consent.

Primary Outcome: Use of restraint, coercive measures and quality deficiencies

At baseline across both groups 52 residents (19%) were reported as having received at least one measure of restraint during the last week (Table 2), accounting for 34 (12.4%) structural restraints and 31 (11.3%) interactional restraints. The most frequent interactional restraint was "showering or bathing when the patient resisted verbally", occurring in 23 residents (8.4%). 154 (56.2%) residents were reported as having been subjected to quality deficiencies (Table 2).

#### Table 2 about here

Use of any restraint (at least one episode during one week) was statistically significantly reduced in both the intervention group and control group, with a tendency to a greater reduction in the control group (Table 3). When we summarize all episodes of use of restraints, the number of episodes decreased from 33 at baseline to 23 at follow-up (p = 0.025) in the intervention group, with a greater reduction in the control group from 42 at baseline to 18 at follow up (p < 0.001). This effect was consistent across all restraint types.

#### Table 3 about here

Following the regression model, the only significant association with the outcomes where the baseline scores for the respective outcome scores. For "any restraint" the difference between intervention and control was significant after adjusted for the baseline score (p=0.051) (table 3). By adjusting for cluster effect the same result was given, thus we report single level effects. For "any restraint" the model (Table 3) explained 19 % of the variation (Nagelkere R Square). Most use of restraints at follow up was explained by the fact that the patient was subjected to restraint at baseline (15%), thus 4% of the variation of the use of restraint can be explained by the group belonging (intervention vs control)

#### **Secondary Outcomes**

For change in CMAI-score the ICC was 3.2% and for change in NPI-sum, ICC was 1.4%. Indicating a minimal clustering effect, thus further analyses are performed without adjusting for cluster effect.

There was a significant reduction in CMAI score in both the intervention group and the follow-up group with a slightly higher reduction in the control group although this did not reach significance (Table 4).

#### Table 4 about here

In contrast, total NPI score increased in both groups, reaching significance in the treatment group (p = 0.007). Difference between groups was not statistically significant (Table 4). Adjustment for baseline scores and confounding factors show that the modest change in these scores for agitation are due to regression to the mean (Supplementary Table 1).

Supplementary table 1 about here

Analysis of use of psychotropic drugs shows a small non-significant increase in use of antipsychotics (14.1% to 17.7%) and antidepressants (35.9% to 38.4%) in both groups over the seven-month period.

#### Discussion

This study aimed to evaluate the effectiveness of a staff training intervention in reducing the use of restraint in Norwegian care homes. Analysis of data from 24 care homes has shown statistically significant reduction in the use of restraint in all homes over the seven month study period. Surprisingly, there was a statistically significant difference in reduction between the treatment and control groups, with a greater reduction in the control group. This finding is unexpected and may be an indicator of a treatment response by care staff who, having received the TFT intervention had increased awareness of the issues associated with restraint use, were better informed and more highly motivated to identify and report restraint compared to their counterparts in the control (Huizing *et al.*, 2009a). This finding must also be interpreted in the context of the concurrent training and legislative initiatives underway in Norway prior to- and during the intervention period for this study. The introduction of legislation in the Patients' Rights Act in 2009 to govern the use of restraint in people lacking capacity had significant implications for care homes (4A the Patients' Rights Act, 1999). A government-driven educational programme for staff was delivered to support care staff in reducing restraint use and to promote person-centred care. It is therefore likely that changes to attitude and practice leading to reductions in restraint use, were already underway. This also occurred during a period of focused international effort to improve the management of BPSD in care homes.

This change of the landscape of care practice is also reflected in the baseline data reported by the study. Evidence published prior to 2009 shows a high frequency of use of restraint in Norwegian care homes, with one large study reporting use of at least one PR in 78.8% of wards (Kirkevold *et al.*, 2003). The baseline data presented by this study collected in 2012 reveals a far lower frequency, with only 19% of residents receiving a restraint in the last week as opposed to (Kopke *et al.*, 2012), where over 30% used any physical restraint. This less-than-expected baseline occurrence of restraint likely represents a change in care practice over the last decade and as a result of new government introduced in 2009. The baseline data imply that the legislation has successfully and dramatically reduced the use of restraint in care homes. This led to a floor effect within the data with low baseline

frequency of restraint across the cohort. Within this environment it is therefore difficult to determine what impact the TFT intervention had on practice. Furthermore, no statistically significant differences were observed in agitation or use of psychotropic drugs in care home residents in either group although there was a slight increase in psychotropic use across the study cohort. Baseline levels of psychotropic use in the cohort were also low, mirroring a trend seen in other countries where antipsychotic use has fallen following government and clinical initiatives (Barnes *et al.*, 2012).

The study included a purposively varied and representative cohort of Norwegian care homes, indicating that the trends reported here are likely to echo changes occurring in practice across the country. Overall the data reflects a positive trend amongst care homes within the cohort, with low use of restraint, agitation and use of psychotropic drugs at baseline. This interpretation highlights the importance of nationwide initiatives and legislation to improve care for people with dementia, and may have particular relevance to countries where restraint use remains common. It merits further evaluation of the national programme in order to inform future training initiatives both in Norway and internationally.

Some limitations should be considered when interpreting the outcomes of this study. This was a large study based in a representative cohort of care homes. The selection of care home was truly random, the selection of ward within the nursing home was a convenient selection, as to which ward could fulfil the criteria. However, the baseline data does reveal differences in a number of items between the two groups, including age, ADL, CMAI and NPI scores. These confounders were included in a regression analysis to identify any impact on outcomes, which showed that difference in changes in agitation represented regression to the mean. However, it is possible that these differences at baseline may indicate underlying bias between the two groups that may have influenced the differential outcomes between the two groups. Given the magnitude of change overall in the primary measure however, it is unlikely that this factor would have influenced the main findings of the study.

#### **Conclusions**

This study reports on the statistically significant reduction in use of restraint in care homes, both prior and during the seven-month intervention period, in both intervention and control group. When interpreted within the context of the current climate of educational initiatives to reduce restraint and a greater focus on the importance of person-centred care, the study also highlights the potential success achieved with national training programmes for care staff and should be further evaluated to inform future training initiatives both in Norway and internationally.

#### **Conflict of interests**

None

#### Description of authors' role

IT, TEM and ØK conceived and designed the study. IT and ØK analyzed the data and prepared the first draft. All authors examined these results and were involved in analyze and interpretation of data. All authors participated in the writing of this paper.

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(IR) and any structural restraint (SR)

	The interve	ention group n	= 83 N (%)	The control group n= 114 N(%)			Multivariate logistic regression – OR (p-value)*		
	Baseline	Follow Up	p-value	Baseline	Follow Up	p-value	Intervention group – control group is	Subjected to restrain at baseline - not subjected to	
							reference	restrain is reference	
Any restraint	16 (19.3)	15 (18.1)	0.025	21 (18.4)	10 (8.8)	< 0.001	2.48 (0.051)	6.99 (<0.001)	
Any IR	12 (14.5)	9 (10.5)	0.007	12 (10.5)	7 (6.1)	< 0.001	1.71 (0.339)	10.03 (<0.001)	
Any SR	9 (10.8)	7 (8.4)	0.115	11 (9.6)	6 (5.3)	0.044	1.64 (0.400)	4.65 (0.020)	

<sup>\*</sup> Use of restraint at follow up is outcome and independent variables are intervention group vs control group and subjected to restraint at baseline vs not subjected to restraint at baseline.

Table 2 Number of patients (%) subjected to restraint and coercive measures at least once during last week by type of measure at baseline

Type of measure	All # (%) n=274	Intervention group # (%) n=118	Control group # (%) n=156	Pearson $\chi^2$ for difference between intervention and controll
Structural measures				
Bedrails without the patient's consent	13 (4.7)	6 (5.1)	7 (4.5)	
Belts or other fixing to bed	1 (0.4)	1 (0.8)	0 (0)	
Belts or other fixing to chair	1 (0.4)	0 (0)	1 (0.6)	
Locked in a room	0 (0)	0 (0)	0 (0)	
Physical retention	8 (2.9)	2 (1.7)	6 (3.8)	
Devices on the patient that alarm the staff when the patient leave the building	7 (2.6)	5 (4.2)	2 (1.3)	
Devices to track the patient (eg GPS)	0 (0)	0 (0)	0 (0)	
Mixing drugs in food or beverages without the patient knowledge or consent	14 (5.1)	8 (6.8)	6 (3.8)	
Any structural measures	34 (12.4)	17 (14.4)	17 (10.9)	0.383
Interactional measures				
Use of force to perform examination or treatment	0.0	0 (0)	0 (0)	
Holding of hands, legs or head for washing or dressing/undressing	12 (4.4)	3 (2.5)	9 (5.8)	
Showering or bathing when the patient resist physically	6 (2.2)	2 (1.7)	4 (2.6)	
Showering or dressing when the patient resist verbally	21 (7.7)	9 (7.6)	12 (7.7)	
Forcing the patient to the bathroom	13 (4.7)	4 (3.4)	9 (5.8)	
Feeding a patient against his/her will	5 (1.8)	2 (1.7)	3 (1.9)	

Any interactional measures	31 (11.3	12 (10.2)	19 (12.2)	0.603
Any restraint and other coercive measures	52 (19.0)	22 (18.6)	30 (19.6)	0.902

Appendix 17 Summary challenging situations presented by staff in coaching sessions

# Type of challenging situations the staff presented in the coaching sessions

Morning bath and shower	Raising up	Move from situation (seclusion)	Deny/ hinder pt's in going out	Medication	Physical devices to restrain	Structural restraint (locked doors)	Other	
**** **** **** ***********************	<del>1111-</del> 11	<del>              </del> 	<del>*****</del> ****	<del>    </del>	<del>!!!!</del>	III	<del>!!!!-</del> !!!!	
37	7	17	8	6	5	3	9	
90 RESTRAIN SITUATIONS IN TOTAL DURING 72 COACHING SESSIONS								

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