

## Quality of everyday rehabilitation in the home care – a question of relational coordination?

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Almost all municipalities in Denmark have within the latest years implemented a kind of everyday rehabilitation in the home care. The aim of this study was to explore how the relational coordination in the home care teams was related to the employee's experience of job and quality of care. Analyses of qualitative and quantitative data from 5 municipalities indicate that if everyday rehabilitation is to succeed, it is crucial that the care workers perceive shared goals and knowledge, mutual respect and problem solving communication, particularly within their own professional group and toward the group leaders.

**Keywords:** relational coordination, everyday rehabilitation, job involvement, quality of care

### 1. Introduction

The home care in Denmark is under pressure due to demographic changes. Thus, there is a need for new approaches, which maintain quality and increase of efficiency of care without compromising the working environment. One such new approach in the home care is commonly referred to as “everyday rehabilitation” and is spreading rapidly in the Danish municipalities. In the US and New Zealand, similar types of services are labeled restorative home care/support services (Levin et al. 2013).

Previous experiences, from Sweden (Månsson M. 2009) and Denmark (Kjellberg et al. 2011) have been promising with regard to possible positive gains for the elderly as well as for the employees and with less economical resources. Results from research studies in the US (Baker et al. 2001, Tinetti et al. 2002) and Australia (Levin et al. 2013) support these positive evaluations, and restorative home care has been shown to reduce subsequent use of home care services. A recent register study from Australia shows reduced use of home care within a 57 month period and accordingly cost savings for individuals who had received a reablement service (Levin et al. 2013). In summary, there seems to be increasing evidence for overall long lasting cost-effectiveness of restorative home care/reablement. However, our present knowledge of the consequences for the employees and for the quality of care of different ways of implementation and organization of restorative care is still very limited. In Denmark, the National Board of Social Services, has from 2012-2014 conducted a large project in order to qualify, document and spread everyday rehabilitation in the Danish home care (Kjellberg et al. 2013). The project concludes that some of the main challenges with regard to the implementation and organization of everyday rehabilitation is; 1) the need for up-qualification of the staff, and; 2) the need for establishing the right setting for the

interdisciplinary work (Kjellberg et al. 2013).

Thus, studies have indicated that the core of a successful everyday rehabilitation is a well-functioning interdisciplinary collaboration. Professor Jody Hoffer Gittel uses the concept of relational coordination as a term for "the coordination of work through relationships of shared goals, shared knowledge, and mutual respect". Gittel and her colleagues have demonstrated that relational coordination is a key predictor when it comes to high productivity, quality of service and customer satisfaction in, among others, hospitals and within the aviation industry, which are known to have complex tasks (Gittel, 2003, 2009).

In the present project we followed the implementation of everyday rehabilitation in the home care in five municipalities. We wanted to explore 1) the pattern of relational coordination between professional groups within different organizations of eldercare, and 2) the associations between relational coordination and team-level perception of job and quality of work performed within the frame of everyday rehabilitation. The assumption behind the second part of the study was that the higher the helpers and assistants perceived the relational coordination in the home care teams, the better perception of the job and of the quality of care performed with everyday rehabilitation.

## **2. Method and data**

### *2.1 Data*

Quantitative as well as qualitative data were collected from the home care in five Danish municipalities in 2012-2013, all in different phases of the implementation of everyday rehabilitation. Altogether, questionnaires were filled out by 655 employees (response rate =80) covering five job-groups: 439 care workers (mainly health care assistants and health care helpers), 91 nurses, 33 therapists, 49 visitation officers and 43 team-managers/leaders. The care workers could be divided into 22 home care teams. For the correlational analyses we only used responses from the care workers, who worked actively with everyday rehabilitation at the time of the survey and who belonged to one of these teams (N= 310), and all correlations are based on the average team scores (N=22). Total response rate for the care workers were 84%.

The qualitative data is based on 12 focus group interviews with employees and another with managers (2-3 in each municipality), 24 observations at group meetings, training sessions in the home of the elderly as well as interdisciplinary meetings (4-6 in each municipality), and 5 individual interviews (0-2 in each municipality).

### *2.2 Statistical analyses*

We explored the association between team-level measures of relational coordination and the seven outcome measures aggregated at team level. Analyses were restricted to care workers to avoid confounding by profession. Analyses used the Pearson correlation coefficient. Due to the exploratory nature of the study, we performed multiple tests. Final evaluation of statistical significance used the Benjamini-Hochberg method to take multiple testing into account (Benjamini & Hochberg, 1995). Analyses were performed in SPSS statistics version 21.

### *2.3 Measures*

#### *Adjustment of the measure of Relational Coordination (RC)*

In order to adjust the RC survey (see RCRC homepage) to a Danish home care context, we developed a cultural translation of the original RCRC survey. We did a pilot testing of

the questionnaire on a selection of 8 care workers from two municipalities. A score for each of the dimensions was calculated based on the mean score on the answers to the specific item posed toward each of the five job-groups. A total score was calculated as the mean of the seven dimensions. Further, scores were calculated for RC toward each of the different functional groups.

#### *Outcome-measures*

The questions about *job-satisfaction* (single item) and *job-involvement* (two items) are from The Copenhagen Psychosocial Questionnaire, with a few minor adjustments (Pejtersen et al. 2010). Further we measured *Competences* with the item: “Do you find that you have the necessary skills to perform everyday rehabilitation?”, *Use of competences*: “Do you use your skills more now than before the municipality introduced everyday rehabilitation?”, *Quality of care*: “Does everyday rehabilitation mean that you can do your job in a better quality than before?” and *Goal of elderly in focus*: “To what extent do you think that people's own goals has been in the center for the courses of everyday rehabilitation, you have worked with? All with the response options: to a very large extent, to a large extent, somewhat, to a small extent, to a very small extent. The item measuring *Attitude from elderly toward rehab*: “How is the attitude to everyday rehabilitation among most citizens?” had the response options: very positive, mainly positive, neutral, mainly negative, very negative.

All measures were standardized into 0-100, where 100 represent the highest (and most positive) evaluation.

### **3. Quantitative results**

#### *3.1. The dimensions of relational coordination and team level evaluation of work and everyday rehabilitation*

Results from the team level analyses of associations between relational coordination (in total and each of the seven dimensions) and outcome measures of job satisfaction and quality of work are presented in table 1.

Table 1: Team level (N=22) correlations (first line) and p-values (second line) between relational coordination (in total and with each of the seven dimensions) and outcome measures. Correlations in bold are statistically significant after adjustment for multiple testing. Correlations in italic are significant at  $p < 0.05$  level before adjusting for multiple testing.

Outcome variable	Shared knowledge	Shared goals	Respect	Frequent communication	Timely communication	Accurate communication	Problem solving communication	Total RC
<b>Involvement at the worksite</b>	,528	,499	,520	,281	,577	,449	,504	,546
	,012	,018	,013	,205	,005	,036	,017	,009
<b>Job satisfaction</b>	,372	,394	,408	,110	,463	,376	,539	,452
	,088	,069	,059	,626	,030	,085	,010	,035
<b>Competences</b>	,374	,377	,399	,203	,336	,268	,318	,436
	,086	,084	,066	,364	,127	,227	,150	,042
<b>Use of competences</b>	,426	,397	,128	,076	,313	,357	,643	,413
	,048	,067	,572	,738	,155	,102	,001	,056
<b>Quality of work</b>	,309	,355	,388	-,045	,157	,338	,520	,341
	,162	,105	,074	,841	,485	,124	,013	,121
<b>Goal of the elderly in focus</b>	,315	,383	,427	-,067	,153	,221	,388	,345
	,153	,078	,048	,768	,497	,323	,074	,116
<b>Attitude from elderly toward rehab</b>	,303	,380	,314	-,048	,139	,170	,448	,309
	,170	,081	,155	,832	,538	,448	,036	,161

As it appears from table 1, none the associations were significant after adjustment for multiple testing. However, as the aim of the study is explorative rather than confirmatory, and given that there is only 22 entities in the analyses, it seems relevant also to draw a picture of the tendencies in the material based on the strength of the correlations.

A look at the correlations showed, firstly, that total relational coordination, as experienced by the care workers, and measured as the average for the team, was moderately to highly (0.30 -0.55) associated with all of the outcomes. Secondly, the highest correlations were for all dimensions of RC found in relation to involvement at the worksite.

Thirdly, the dimension of frequent communication was not associated with any of the outcomes. The dimensions of shared goals, shared knowledge and problem-solving communication had correlations above 0.30 with all of the outcomes, and the dimension of respect with all except from the experience of use of competences in working with everyday rehabilitation. The dimensions of timely and accurate communication had low associations with the outcomes related to the elderly.

### 3.2 The relations to own and other groups - and team level evaluation of work and everyday rehabilitation

Results from the team level analyses of associations between relational coordination toward own (SoSu) and other groups and outcome measures of job satisfaction and quality of work are presented in table 1.

Table 2: Team level (N=22) correlations (first line) and p-values (second line) between relational coordination toward own (sosu) and other groups and outcome measures. Correlations in bold are statistically significant after adjustment for multiple testing. Correlations in italic are significant at  $p < 0.05$  level before adjusting for multiple testing.

Outcome variable	RC-SOSU	RC Nurses	RC Therapists	RC Visitators	RC Group leaders
<b>Involvement at the worksite</b>	<i>,597</i> <i>,003</i>	<i>,423</i> <i>,050</i>	<i>,305</i> <i>,168</i>	<i>,421</i> <i>,051</i>	<b>,658</b> <b>,001</b>
<b>Job satisfaction</b>	<i>,471</i> <i>,027</i>	<i>,486</i> <i>,022</i>	<i>,335</i> <i>,127</i>	<i>,100</i> <i>,657</i>	<i>,521</i> <i>,013</i>
<b>Competences</b>	<i>,362</i> <i>,098</i>	<i>,336</i> <i>,127</i>	<i>,356</i> <i>,104</i>	<i>,251</i> <i>,261</i>	<i>,374</i> <i>,087</i>
<b>Use of competences</b>	<i>,399</i> <i>,065</i>	<i>,308</i> <i>,164</i>	<i>,575</i> <i>,005</i>	<i>,219</i> <i>,328</i>	<i>,303</i> <i>,170</i>
<b>Quality of work</b>	<i>,471</i> <i>,027</i>	<i>,168</i> <i>,455</i>	<i>,497</i> <i>,019</i>	<i>,213</i> <i>,341</i>	<i>,297</i> <i>,179</i>
<b>Goal of the elderly in focus</b>	<i>,537</i> <i>,010</i>	<i>,023</i> <i>,919</i>	<i>,303</i> <i>,171</i>	<i>,271</i> <i>,222</i>	<i>,544</i> <i>,009</i>
<b>Attitude from elderly toward rehab</b>	<i>,491</i> <i>,020</i>	<i>,108</i> <i>,631</i>	<i>,164</i> <i>,465</i>	<i>,277</i> <i>,213</i>	<i>,385</i> <i>,077</i>

Results in table 2 support the results from table 1 that the highest correlations are found in relation to involvement and job-satisfaction. They further suggest the most consistent pattern of association for the SoSu-assistants judgment of RC toward own group, with moderate to high correlations with all outcomes (.36 - .60) and for the RC toward group-leaders (.30 - .66). Concerning the relationship toward the visitators, the associations with outcome are all low (.10-.25) except form the one with involvement (.42). RC toward the nurses shows the highest association with involvement and job-satisfaction, while the other associations are of low to moderate size (0.02-.34). RC toward therapists shows the highest associations with the experience that everyday rehabilitation has improved the use of competences and the quality of work. The other outcomes have low to moderate (0.16-.36) associations with the RC toward therapists.

#### 4. Discussion of the quantitative results in relation to qualitative findings

##### 4.1 Everyday rehabilitation, shared goals, shared knowledge and mutual respect

The quantitative results suggest that a team-level positive evaluation of everyday rehabilitation and involvement at the worksite is associated with a team-level experience of high relational coordination. Particularly shared knowledge, shared goals, problem-solving communication and respect seem to be important.

This is in line with the findings from the qualitative study. In general, the care workers had started up with the attitude, that there was nothing new in everyday rehabilitation, they had always been working with activation and rehabilitation. But in praxis it seems as though the process has given a lift to their professional competences and forced them toward closer collaboration: *“Rehab has pushed the groups together with a more common focus. Now we are all doing it”*, and *“Regardless of professional group, we can all work with rehabilitation. It gives ownership – and community”*.

In one of the municipalities, they had prioritized a thorough education of a smaller group of care workers. As one of the activity leaders highlighted: *"We got a lot more of a common language - it was the way we worked - it really was uphill when we started - the care was not happy, they were used to having the users by themselves - so they were not excited - but it was great that we were going in the same direction."*

The satisfaction among the care workers seems to be closely linked to the perception of the benefits for the elderly: *"It has given me the courage because I have experienced success. Instead of thinking that it's just because they want cost savings. But there have been successes both for me and for the users, and you can see that there is a shift"*. The care workers are, however, highly aware that everyday rehabilitation may take away services from the elderly, and they do not always trust the other professional groups will take the right decisions and respect their professional judgments. One of them explain: *"My professional pride and my observations tells me that because I come in the morning and make breakfast, she got the energy to walk later that day, and I know that if we take it away from her, she will be lost. Now I'm getting quite touched, so I am ... and then we can pick her up afterwards"*. They are afraid that the help will be withdrawn in the same moment that the elderly is able to do something by themselves, and that this will break the person.

The results concerning the seven dimensions of relational coordination further suggested that the frequency of communication with the other professional groups was not important for any of the outcomes, and timeliness and precision not in relation to the elderly, but that they were important in relation to involvement and job-satisfaction. From the qualitative study it was obvious, that everyday rehabilitation requires a higher level of exchange of information among the professional groups, but that this was not always easy to obtain. In all five municipalities, they had experienced problems with the IT systems used for documentation and exchange of information. Some of the challenges were too few computers available, too little time allocated for the purpose, too small hand-held computers, and that some of the IT-systems are simply not functional. This caused many frustrations for the care workers, and may be reflected in the associations between timeliness, precision and satisfaction and involvement at work. However it may not to the same degree have influenced the perception of the quality of care for the elderly.

#### *4.2. RC toward the different functional groups*

Further, the quantitative results suggest that the SoSu-assistants judgment of RC toward own group and toward the group-leaders were more important than RC toward the other functional groups for evaluation of everyday rehabilitation and involvement and job-satisfaction. RC toward the visitators was unrelated to outcome, while the RC toward the therapists was related to the experience of use of competences and quality of work and the RC toward nurses to involvement and job-satisfaction.

None of these results are surprising seen in relation to the qualitative study. The management, and not least the group-leaders, plays an important role in the process of implementation of everyday rehabilitation. It is crucial for the whole process, that they feel ownership the project and are able to organize the work and the collaboration between the functional groups in a supportive way for the rest of the staff. The SoSu-assistants is far the largest group in the eldercare as such, and a large part of the collaboration and communication takes part within the group of SoSu-assistants, so it is not surprising that RC within the group is important. The role of the nurses in everyday rehabilitation has in all of the five municipalities in the study been difficult to define and fulfill, and in most places the nurses are still not well integrated in the rehabilitation work (Limborg & Albertsen, 2013). This may be reflected in the lack of association between the RC toward the nurses and the outcomes related to everyday rehabilitation. However, the nurses are still

important collaborates in the eldercare as such – which may be reflected in the higher associations concerning involvement and job-satisfaction. On the other hand, do the therapists hold very important positions for the implementations of everyday rehabilitation, reflected in the high associations between the RC toward this group and the experience of use of competences and quality of work in everyday rehabilitation. A care worker explain the different relationships to the groups: *“We know the nurses, but we did not know the occupational therapists before. What can they do? We are beginning to understand. And the visitation officers we just scolded out of before, now we know what they're doing and have better cooperation.”*. So even though the RC toward visitors are not associated with any of the outcomes, this may gradually change.

## 5. Conclusion

In conclusion, the quantitative as well as the qualitative results suggest that if everyday rehabilitation is to succeed and the involvement and job-satisfaction from the care workers are to be kept high, it is crucial that the care workers perceive a high relational coordination characterized particularly by shared goals and knowledge, mutual respect and problem solving communication. The RC toward own group of care workers and toward group-leaders seems to be most important, however the relationship to the nurses seems to be highly relevant for involvement and job-satisfaction and the relationship to the therapists for the perception of competences and quality of care.

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