Dementia Care Mapping to support staff in the care of people with intellectual disability and dementia: a feasibility study

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Abstract

Background  The number of people with intellectual disability (ID) and dementia increases; this combination causes behavioural changes. Dementia Care Mapping (DCM) supports staff in dementia care in nursing homes, and may be useful in intellectual disability care. This qualitative study examines the feasibility of DCM for older people with ID and dementia.

Method  We obtained data in focus groups and interviews with professional users, and analysed using a framework for feasibility studies. With experts in dementia and ID-research, we determined the overall feasibility.

Results  DCM was found to be feasible in intellectual disability care, regarding five domains of feasibility. Staff reported DCM to be useful and valuable, and addresses to their demand for skills and knowledge. All professional users found DCM feasible in intellectual disability care, which was confirmed by experts.

Conclusion  DCM is feasible in intellectual disability care. When fully tailored to intellectual disability care, DCM is useful, and provides opportunities to assess its effectiveness.
Introduction

The number of people with intellectual disability (ID) and dementia is growing as the life expectancy of people with ID increases. This has a large impact on the lives of people with ID and dementia, their housemates and on their care staff. The combination of ID and dementia causes behavioural, emotional and psychological changes and can lead to challenging behaviour like agitation, depression or apathetic behaviour, and mannerisms that are hard to grasp. ID-care staff expresses a need for knowledge and skills to address the changing behaviour and needs to provide good care and to create a dignified life situation for their residents with dementia; they tend to use an ad hoc approach. Therefore, an evidence-based method that provides insights, knowledge and skills for professionals in the care of older residents with ID and dementia is urgently needed, but not yet available.

Dementia Care Mapping (DCM) is a widely used method to support staff working in dementia care in psychogeriatric nursing homes. It is promising for staff working with older people with ID, and has a number of characteristics that are innovative for this field: it is a relatively structured psychosocial method, it is based on principles of person-centred care, and it is specifically aiming at people with dementia. It is a structured, person-centred, multi-component intervention, designed to improve the quality and effectiveness of care from the perspective of people with dementia. DCM is an observational tool, based on the social-psychological theory of personhood in dementia of Kitwood, to increase person-centred care of people with dementia, which is explained further in Box 1 (p. 20). DCM aims at different levels: at the individual (residents and caregivers), at the group (care giving teams), and at multi-disciplinary teams and management. Furthermore, person-centred methods, like DCM, are associated with (psychosocial) benefits for both people with dementia (whether or not with ID) and their care staff, by improving the quality of care.

Available studies on DCM among people with ID are few and small, but those available yielded promising results. Finnamore and Lord (2007) applied DCM to eight people with both ID and dementia, Persaud (2001) and Jaycock et.al. (2006) studied DCM in 14 people with severe or profound ID but without dementia. These studies indicated that those who provide DCM (DCM-mappers) found DCM to be acceptable and practical in ID-care. The authors recommended further use and assessment of DCM in the care of older people with ID, with or without dementia. This recommendation requires confirmation of the feasibility of
DCM in ID-care from a broader perspective, that is, from all professionals involved, being: mappers, staff and management.

The aim of this study is a piloting of DCM to examine whether this method is feasible in the care of older people with ID and dementia in group homes in the Netherlands. In this study feasible means: meeting a five-domain framework derived from the key areas of focus for feasibility studies of Bowen et al. (2009): demand, implementation, acceptability, practicality and adaptation (see Table 1). We assessed DCM’s feasibility from different perspectives: from the receivers of DCM (staff and group home managers) as well as from DCM-providers (DCM-mappers and -trainers). Findings were next further attuned to care for people with ID and dementia, based on advice of experts on DCM- and ID- and dementia research.

Methods

Design

We set up a qualitative study to assess the feasibility of DCM in the care of older people with ID living in a small-scaled group home. First, DCM was applied in two group homes for older people with ID, with or without dementia. Next, we evaluated the application of DCM with staff in focus groups and with group home managers, DCM-mappers and DCM-trainers using semi-structured, face-to-face interviews. We consulted experts from DCM-Netherlands, and DCM-UK (Bradford University), and other experts on DCM, dementia and ID-research regarding the design of the study and the interpretation of the results. DCM is an intervention aimed at staff, therefore we focussed in this feasibility study solely on those who provide and receive DCM and not on the residents.

Sample

We collected data from receivers of DCM, being staff and managers, and providers of DCM, being DCM-mappers and DCM-trainers, in two small-scale, residential group homes for older people with ID, randomly selected out of 25 homes. All homes met the criteria to carry out DCM (e.g. to observe four residents simultaneously in communal areas, of whom at least two people with dementia). In each group home eight older residents with ID, of whom three had dementia, were living together, supported in all aspects of day-to-day life, including activities.
of daily living (ADL) and day care activities, by vocational trained professionals. All staff working in the group homes participated in the intervention and were invited to participate in a focus group, in each home one focus group. In one home, eight out of 12 staff members, and in the other home seven out of 12, attended the focus group. Staff not participating in the focus groups were absent because of illness or having their work shift at the same time. We also interviewed the managers of both group homes individually, as we did the two DCM-mappers, and the two DCM-trainers involved. In total, we conducted two focus groups and six face-to-face interviews.

**Intervention**

The intervention in our study consisted of a cycle of DCM in each group home (Box 1, Figure 1; p. 20). First, in each home we trained a staff member to become a certified, advanced, DCM-mapper. We selected a staff member who had the required competences: e.g. experienced with older people with ID with and without dementia, having at least a bachelors’ degree, and basic knowledge of person-centred care. Next, to maintain independency, these mappers carried out DCM in each other’s organisations. The mapping was applied at three different moments to cover all major daily situations: during day-care activities, on a regular midweek afternoon and evening, and on a quiet weekend day. In each mapping session four older residents, of whom three had dementia, were mapped simultaneously. After the mapping, the mapper presented the results in a report and a feedback session to the staff and manager, whereupon staff were able to draw up action plans.

**Measures and Procedure**

We conducted both focus group discussions with staff, and the face-to-face interviews with group home managers, DCM-mappers and DCM-trainers to ascertain their experience with and opinions of the mapping process and the feasibility and potential of DCM in ID-settings. We set up the design and the contents of the study, and the feasibility based on advice of experts on DCM- and ID- and dementia research, as we did in determining the overall feasibility. The focus group discussions took place within a month and the face-to-face interviews within two months after the application of a full cycle of DCM (see Box 1 and Figure 1). The focus group discussions and interviews were carried out in a semi-structured way,
guided by a topic list, led by a researcher [FDS, GJD] assisted by a researcher taking notes [FDS, ASF, GJD]. The focus groups and interviews all had a length of approximately 1.5 hours, were audio recorded, and next transcribed in full. The topic list was developed by the researchers, a.o. based on observations of a researcher (e.g. about implementation procedure, involvement of team) [FDS] during the introductory briefings and feedback sessions, and points of interest raised by the expert group. The topics addressed the experiences of the users of DCM concerning the demand for DCM, its implementation, acceptability practicality and adaptation (see Table 1). The design, analysis and reporting of the focus group discussions and interviews were performed according to the checklist: Consolidated Criteria for Reporting Qualitative Research (COREQ).\(^{37}\)

**Data Analysis and reporting**

First, we assessed and described the background characteristics of staff and the older residents in the group homes where DCM was applied (f.e. educational level, experience). Next, we assessed feasibility using *key areas of focus for feasibility studies* of Bowen et.al (2009),\(^{36}\) as presented in Table 1. We followed a stepwise procedure: we transcribed verbatim the interviews and contents of the focus groups and analysed them following the principles of conventional content analysis;\(^{38}\) we used Atlas.ti computer software (version 7.5) (Atlas.ti Scientific Software Development GmbH, Germany). One interviewer [FDS] reviewed the transcripts for completeness and accuracy. Next, the transcripts were forwarded to the DCM-mappers and -trainers involved to check them for completeness. After approval of the contents by the mappers and trainers, two researchers [FDS, ASF] independently read all transcriptions to elicit key topics and the relationships between them. The first author [FDS] set up a concept codebook and discussed it with the second author. Third, both researchers [FDS, ASF] coded three transcripts and compared the coded transcriptions. Based on the outcomes of this comparison we refined, relabelled and regrouped the initial codes until reaching consensus. Then we calculated the Kappa coefficient to check on the inter-observer agreement. According to the criteria of Viera,\(^{39}\) agreement was substantial (78%). Finally, after coding all transcripts, we identified themes based on several key areas of focus of Bowen et.al (2009) (Table 1). We collected main findings for each theme, separately for DCM-trainers and
mappers (providers), and the staff and their managers (receivers). We reported the results using the areas of focus for feasibility studies, mentioned in Table 1.

### Ethical Assessment

The Medical Ethical Committee of the University Medical Centre Groningen did not consider approval necessary for this study (decision M13.146536), because DCM is an intervention aiming at staff. We obtained written informed consent from the legal representatives (i.e., a relative or an administrative person) of the people with ID involved in the study for participating in DCM.

### Table 1. Key area of focus for feasibility studies, adapted to this study

<table>
<thead>
<tr>
<th>Area of focus</th>
<th>Sample outcomes of interest</th>
<th>Participants (N=21)¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand</td>
<td>• Perceived demand</td>
<td>Staff</td>
</tr>
<tr>
<td></td>
<td>• Expressed interest or intention to use</td>
<td>Managers</td>
</tr>
<tr>
<td></td>
<td>• Degree of execution</td>
<td>DCM-mappers</td>
</tr>
<tr>
<td>Implementation</td>
<td>• Amount, type of resources, and preconditions needed to implement</td>
<td>Staff</td>
</tr>
<tr>
<td></td>
<td>• Factors affecting implementation ease or difficulty</td>
<td>Managers</td>
</tr>
<tr>
<td></td>
<td>• Fit within organisational culture and vision</td>
<td>DCM-mappers</td>
</tr>
<tr>
<td>Acceptability</td>
<td>• Perceived appropriateness</td>
<td>Staff</td>
</tr>
<tr>
<td></td>
<td>• Perceived applicability</td>
<td>Managers</td>
</tr>
<tr>
<td></td>
<td>• Perceived positive or negative effects on organisation</td>
<td>DCM-mappers</td>
</tr>
<tr>
<td></td>
<td>• Perceived usability of each component</td>
<td>DCM-trainers</td>
</tr>
<tr>
<td>Practicality</td>
<td>• Positive/negative effects on target participants</td>
<td>Staff</td>
</tr>
<tr>
<td></td>
<td>• Intention to continue use</td>
<td>Managers</td>
</tr>
<tr>
<td></td>
<td>• Suggestions for improvement</td>
<td>DCM-mappers</td>
</tr>
</tbody>
</table>

¹ Staff: n=15, Managers: n=2, DCM-mappers: n=2, DCM-trainers: n=2.

*Note.* Adapted from “How we design feasibility studies: by Bowen et al. (2009)”
Results

Background

Table 2 presents the background of the staff and residents of both group homes. In both, staff had worked, on average, for more than 10 years together in the same group home. Staff in both homes reported that some of them incidentally received a training in caring for older people with ID, but that most of their current knowledge was practice-based. In each home lived eight older people with ID, of whom three had dementia. The residents had been living together for many years in the same home, some for more than 40 years. In both homes complex care was provided; the residents had moderate to severe levels of ID; and had multiple problems, such as syndromes (e.g. Down’s, Rett, Prader-Willy), autism, psychiatric diseases (e.g. anxiety disorder, delusional disorder) and/or problems linked to ageing (e.g. dementia, hearing and sight impairment, internal conditions, cancer).

Table 2. Characteristics of participants in the study

<table>
<thead>
<tr>
<th></th>
<th>Team 1</th>
<th>Team 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Staff</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team size</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Gender (female)</td>
<td>100%</td>
<td>92%</td>
</tr>
<tr>
<td>Educational level (intermediate vocational)</td>
<td>92%</td>
<td>92%</td>
</tr>
<tr>
<td>Experience with target group (years; mean)</td>
<td>20 years</td>
<td>20 years</td>
</tr>
<tr>
<td>Involvement with current residents (years; mean)</td>
<td>15 years</td>
<td>15 years</td>
</tr>
<tr>
<td>Knowledge on people with ID and dementia</td>
<td>Experience based</td>
<td>Most experience based</td>
</tr>
<tr>
<td>Currently used method(s) in group home</td>
<td>Method Urlings(^1)</td>
<td>None(^2)</td>
</tr>
<tr>
<td>Personalised care(^3)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Residents</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group size</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Gender (female)</td>
<td>63%</td>
<td>38%</td>
</tr>
<tr>
<td>Persons with dementia (diagnosed or suspected)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Complex care(^4)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

1. Urlings (2014)\(^6\)
2. Staff attended several courses on older residents and complex care; no specific method was used in group home.
3. Personalised care: care is adapted to the residents’ (physical) needs.
4. Complex care occurs due to low level of functioning (IQ ≤ 50) and multiple problems as a syndrome, autism, psychiatric diseases and/or problems linked to ageing.
Feasibility

Demand
Staff, managers and mappers found DCM useful to address their need for professional competences (insights, knowledge and skills) on dementia and person-centred care. They described their work as increasingly difficult, and mentioned often feeling unable to provide good care to their residents because of the problems associated with ageing. Along with more insights into the behaviour of individual older people with ID and dementia, DCM gave professionals new skills and greater knowledge to deal with dementia and to provide person-centred care.

At first we thought he was just being stubborn. (...) For example when someone is much more cooperative and easy going in the afternoon than in the morning. Back then we were like: whether you like it or not, we take showers in the morning. Hoopla. And after DCM we all were like: oh, yeah, ooh. We should not have done this and not have done that... (Staff 1.1)

The way of living. Not wanting any medicine. Always struggling with him. When he didn’t want to put on his clothes and he lay down naked under the desk. Or chasing him with the shower nozzle. I really will never do that again. (Staff 1.2)

Looking back I think, ooh, we should have done things very differently. It was all lack of knowledge. (Staff 1.4)

Implementation
Both teams applied DCM according to the DCM-implementation protocol, and were strictly monitored and supported by the DCM-trainers. This protocol included descriptions of the DCM-preconditions and every step for applying DCM, which ascertains a similar implementation in both homes.

Carrying out consecutive six-hour mappings of four people in communal areas, as prescribed in the DCM-protocol, was found to be not possible because residents had free access to their own apartments and some of them had external day-care activities. After consultation with DCM Netherlands and DCM UK, we decided that for optimal results the mappings should comprise six hours, albeit in two or three parts, with a minimum duration of two hours.
Maybe to restrict it a bit. (...) Cutting [the observation – FDS] into pieces would be an idea. But on the other hand, then you would not observe the unfilled moments. Those also yield a lot of information (...) So I think both. That you observe different things, like an activity, an eating situation, but also an empty moment when nothing is happening. (Mapper 2)

Preconditions
As a part of the implementation, we discussed with DCM Netherlands the degree to which mappers, staff, managers and organisation realised DCM-preconditions,41 as presented in Table 3. The required preconditions on the mappers’ educational level (bachelor) were realised in both group homes. At the level of the teams, one group home had realised more preconditions than the other. For example, regarding the level of commitment to DCM one team was eager to participate for more knowledge, the other team appeared to be hesitant. Commitment by the team and the manager was found decisive for success by the DCM-mappers and -trainers (see Table 3). Furthermore, in one location not all staff members were included in the team’s introductory briefing; this caused irritation during the mapping and the feedback session, due to lack of clarity about the intervention. Safety and stability within the teams proved necessary for openness to feedback. One team appeared stable and mutual supportive, but the other team was slightly unstable due to a forthcoming reorganization.

If you want to achieve maximum results from DCM, you should look carefully at the team. People should feel safe. (Manager 2)

At the management level, one group home had realised more preconditions than the other one (see Table 3). One team manager was firmly committed to DCM and took a coordinating role; the other manager was less involved in the team, and let a coordinating staff member manage the implementation of DCM. As both organisations had a vision and/or worked with a method related to person-centred care, no conflicting underlying visions interfered with the implementation of DCM.

The team manager also has a crucial role in this. Manager Y, of course, is very enthusiastic and contributes substantively to the discussion, but you don’t see manager X doing that. I thought that was a shame. (Mapper 2)
Table 3. Preconditions to be fulfilled during implementation DCM

<table>
<thead>
<tr>
<th>Level</th>
<th>Precondition</th>
<th>Fulfilled in group home 1</th>
<th>Fulfilled in group home 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mappers</td>
<td>Educational level: ≥ bachelors’ degree</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Experienced with older people with ID and dementia</td>
<td>✓</td>
<td>~</td>
</tr>
<tr>
<td></td>
<td>Advanced trained in DCM-method (Inter-reliability in coding ≥ 0.8)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Met DCM-mapper requirements</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Advanced in Person-Centred Care</td>
<td>~</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Positive attitude towards DCM</td>
<td>~</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Inclusion of all staff members in all sessions (briefing/feedback)</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>Staff/Team</td>
<td>Experience with person-centred care practice</td>
<td>~</td>
<td>~</td>
</tr>
<tr>
<td></td>
<td>Safe and stable team</td>
<td>~</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Open for change in own care behaviour</td>
<td>~</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Trust in team management</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>Management</td>
<td>Firm commitment to DCM</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Provision of time and resources to implement DCM</td>
<td>~</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Team manager active and present in team</td>
<td>~</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Team manager coordinating DCM in organisation</td>
<td>~</td>
<td>-</td>
</tr>
<tr>
<td>Organisation</td>
<td>Current procedures connect with Person-Centred Care</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

1 ✓ = yes, n = no, ~ = partially

Acceptability

Overall, the DCM-mappers and -trainers found DCM acceptable in the care for older people with ID and dementia. They found no major adaptations necessary for its use in ID-care, although the character of ID-care differs from the routine care in nursing homes where DCM normally is applied. For example, unlike in nursing home settings, older residents with ID have during their entire lives been dependent on care, have free access to their own apartments and often have external day-care activities.

As a mapper I found it very practical, also being there, talking with the clients, and also the contacts with the staff went very well. It was actually all very doable.
(Mapper 1)

The appropriateness and applicability of DCM in the care of older with ID and dementia was qualified as good. Mappers were able to apply the existing DCM-codes in the care of people with ID, no new codes were required. However, mappers and trainers found
slight differences in the use of DCM in ID-care, compared to the original DCM application. For example: people with ID showed more varying kinds of behaviour. Furthermore, some DCM-codes were used more frequently (i.e. more codes A (articulation), B (borderline), W (withstanding) and T (timalation: sensory stimulation/interaction), and some codes were used less (i.e. G (going back: reminiscence)). In Mood and Engagement (ME) scores, people with ID were found to be more engaged to objects. Some codes were interpreted differently: e.g. in the use of personal detractions or personal enhancers (PDs/PEs) the PD 'Infantilisation' was found to be easily confused with PE 'Validation' (recognize and support the reality of the resident). Therefore, mappers strongly recommended developing a DCM-manual with codes, case histories and examples from ID-settings. Subsequently, DCM-mappers and trainers reported that the mappers’ training needed to include more attention to specific characteristics of care of people with ID.

That is also noticeable with hand-rubbing. (…) It is not timalation [sensory stimulation/interaction -FDS] and not a feeling. It is purely focused on themselves, the rubbing makes it a code W. This is not how it was described in the handbook, but we discussed with the mappers that it can be a code W, but we need to make that clear. (DCM Trainer 2)

Practicality
The mappers were able to carry out mappings as intended, except for the six consecutive hours as mentioned above. According to the staff and mappers, the mappings influenced neither their own work nor the usual behaviour of the residents.

The feedback and actions developed based on the observations were perceived as useful and applicable by the staff. Both the staff in general and managers were positive about the use of DCM; it provided new insights into how their residents perceived care, and gave concrete cues for providing individual care, although most inability to provide good care exists during ADL. Moreover, staff indicated that they were surprised and often not being aware of their own caring behaviour, for example that they were speaking childish to their older residents (personal detraction (PD) Infantilisation)) or pushing a wheelchair without warning (PD objectification).

These actions can be used immediately. Very practical. (Staff 2.3)
Yes, because you learn to look more from the client’s perspective. What he or she needs. (Staff 2.2)

The points may not always be immediately useful, but you really learn to look in a different way. (Staff 2.6)

By the long observation you discover someone’s possibilities. And if you focus solely on problem behaviour or on problems, you will miss that (...). DCM really does help with that. (Staff 1.6)

Adaptation

The receivers of DCM, staff and managers, found DCM adaptable to ID-care, they reported being satisfied and finding that it added value, and they intended to continue the use of DCM. Staff and managers reported that the mappings by an independent mapper were useful and eye-opening by trying to take the perspective of their residents. Beforehand, one team was sceptical about the outcomes, but nevertheless perceived the mapping and feedback as valuable.

I get stuck at times. When things don’t go well during care. I noticed that I got new ideas from the DCM meetings, like: I can try again and do it that way. (Staff 2.3)

A bit of an eye-opener, there are still some ways to try that could work out better. I find that very positive. Look at situations differently. (Staff 2.5)

DCM provides a practical dimension. My staff said: yes, we do work in a person-centred way, but how does that work in daily practice? And I know that staff are convinced that they do work like that. But now you show them what they do, what they can do differently, and how they can do it. (Manager 1)

Subsequently, the staff found DCM to have added value for all older residents, independently of whether they had dementia or not. They reported being surprised to see unexpected possibilities in their residents. Moreover, staff mentioned that DCM helped them to apply in practice knowledge gathered previously in courses, and to implement other (person-centred) methods in which they had previously been trained.
Previously, I worked with a group of children with severe learning disabilities, and with a PIMD-group. Those were people with very low levels of functioning, not people with dementia, but with a very low level of functioning. (...) If I now look back at the situation with those groups, I think DCM could also be very meaningful there. (Staff 2.6)

Staff and managers considered the cyclic character of DCM useful and expressed an intention to apply this method in their routine work. Staff, managers and a mapper even suggested expanding the DCM method to include individual observations, so as to focus more on the problems in private areas, as during assisting individual residents in activities of daily life (ADL).

I thought it might be better to follow the clients individually. Because at that moment she [the mapper – FDS] was alone in the living room, and everything happening at the back of the hallway was impossible to observe. Or, for example, client J., the way she goes to her own room and does all kinds of things there. In there, she is much more on her own, doing things on her own. (Staff 1.6)

I think that would add to [the mapping - FDS] of the behaviour of client J., because other things are happening there. (Staff 1.1)

Discussion

We found that DCM is feasible in ID-care for older people with ID and dementia, from the perspective of receivers (staff, managers), providers (DCM-mappers, DCM-trainers) and experts in ID- and dementia research. DCM in ID-care settings was found to meet five aspects of feasibility: it met a demand, was implementable, acceptable, practical and adaptable in ID-care.

Our study showed that DCM is feasible for use in the care of older people with ID and dementia, without major adaptations. According to all professional users (receivers and providers), the method provides for a need, is non-invasive to the residents; the observations did not influence the usual behaviour of the residents and of staff, and the results were found of great value for daily care practices. This confirms and extends the findings of Finnamore and Lord (2007), Persaud (2001) and Jaycock et.al. (2006), who assessed DCM in ID-care from
the providers’ perspectives only. They concluded that DCM is acceptable and practical in ID-care for people with or without dementia. They found the mappings to be accurate, although they used observation periods shorter than the prescribed six consecutive hours, and found slight differences in use of DCM-codes (i.e. more codes W (withstanding) and T (timulation)). Furthermore, our finding of a need for expansion of the mappings in private areas, to complete the picture of the (challenging) behaviour and wellbeing of the residents being mapped, was touched on by Jaycock et al. (2006) from the provider’s perspective.

Our observations on demand and preconditions support those of previous studies in different settings. The demand for a method to handle problems associated with the ageing of people with ID (as dementia) we found, is widely reflected in studies of experiences of staff in working with adults and older people with ID. Several studies of DCM in nursing home settings reported difficulties similar to ours in fulfilling the DCM-preconditions. These studies concluded that to reach optimal effect of DCM, the implementation requires strong and accurate attention. Increasing the number of realised preconditions is likely to increase the success of the implementation. However, as DCM is a multi-component method for application in practice, realising all preconditions is hard to accomplish. Although the realisation of the preconditions was not perfect, this did not obstruct the implementation of DCM in the group homes concerned.

We found the framework of Bowen et al. (2009) for assessing feasibility also to be applicable regarding ID-care; it confirmed findings of previous studies on health interventions in patients with advanced, incurable diseases and their caregivers, in older hospitalised patients, and in children with autism. Moreover, we were able to apply all five aspects of Bowen’s framework, whereas the previous studies usually addressed only some of them. Bowen’s framework thus seems to be fully applicable to ID-care, leaving to be answered whether that also holds for various other types of care.

Strengths and limitations

A key strength of this study is our use of a multi-informant design to examine the use of DCM in ID-care settings. Informants were receivers of DCM (staff and managers) and providers (DCM-mappers and -trainers), with confirmation by experts in dementia- and ID-research. Previous studies focussed mainly on the providers’ perspective. Second, we used a
comprehensive framework for feasibility studies, which allowed us to examine the feasibility of DCM in ID-care in its broadest sense. Results of the previous studies of DCM in ID-care related mostly to the domains of acceptability and practicality. Third, we addressed the feasibility of DCM in routine ID-care practice, thereby enhancing the validity of our findings for routine practice.

Limitations of this study align with the pilot character of the study but should also be noted, the first being its small sample size and the full reliance on qualitative reports, which does not allow inferences on the effects of DCM. Second, each of the two randomly selected group homes had its own vision, culture, team characteristics, and habits in care. This provides a realistic representation of the implementation of DCM in actual ID-care practice, but generalisability to other settings remains to be investigated.

**Implications**

We found DCM to be feasible in the care of older people with ID and dementia, and allows for wider implementation of DCM in ID-care. It implies a next step to assess DCM’s effects on the job satisfaction and quality of care of ID-care staff and its effects on the quality of life of older people with ID. The method therefore needs to be tailored fully to ID-care: by means of small modifications in case histories, examples and behavioural category codes in the manual. Difficulties with fulfilling DCM-preconditions should be addressed, for example by fulfilling an agreed minimal number of conditions before implementing. In any case, we identified a demand of staff, mappers and managers, for a version of DCM with individual observations in private areas or during ADL; this should be considered, and if developed, followed up in a study. A major point of interest in this should be the adherence to the core values of DCM and person-centred care and the compliance of the adapted version to the prevailing ethical principles.

**Conclusion**

DCM is a feasible method in the care of older people with ID and dementia. It meets a strong demand for a method to support staff in caring for older people with ID, and was found to be implementable, acceptable, practical and adaptable in ID-care from different perspectives:
staff, managers, DCM-mappers and DCM-trainers. No major adaptations are needed to tailor DCM to ID-care settings; only small modifications in DCM-codes and examples and smaller observation periods are required, due to the different character of care in ID-settings. DCM can help care staff to provide adequate, person-centred, support for the growing group of older people with ID and dementia.
References


20. Rokstad AMM, Røsvik Ø, Selbaek G, Saltyte Benth J, Engedal K. The effect of person-centred dementia care to prevent agitation and other neuropsychiatric symptoms and enhance quality of life in


