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#### ORIGINAL ARTICLE



# Comparing the care environment at farm-based and regular day care for people with dementia in Norway—An observational study

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#### **Abstract**

People with dementia should be able to live in the community, and day care services are recommended as a means for people to live in their own homes for as long as possible. In this study we wanted to compare the quality of care at one type of small-scale day care situated at community farms to regular day care provided in connection with residential care facilities for elderly people. A total of 42 participants from 10 farm-based day care offers and 46 participants from seven regular day care offers were included. A qualitative observational design using the validated Maastricht Electronic Daily Life Observation tool was used. The data were collected between March and June 2018. Ecological momentary assessments of the activities taking place, level of engagement, physical effort, location, social interaction and mood were conducted while the participants attended their day care offer. The results showed that familiar daily activities were common at farm-based day care, and a linear mixed model analysis showed that farm-based day care attendees used more physical effort, spent more time outdoors, had more social interaction and experienced more positive mood compared to regular day care attendees. These findings contribute with valuable information about care provided at different types of day care services, and indicate that farm-based day care has more activities with the potential to meet the social and activity needs of people with dementia compared to regular day care. There are two main implication of this study. First, regular day care services should focus on including more familiar daily activities found to be important for attendees' sense of identity and feelings of contributing. Second, regular day care services should utilise the potential of available outdoor areas as time spent outdoors has been found to facilitate physical activity, relaxation, health and well-being.

# KEYWORDS

care farms, day care, dementia, MEDLO-tool, person-centred care, quality of care

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## 1 | INTRODUCTION

About 50 million people are living with dementia in the world, a number that is estimated to rise to 75 million by 2030 (Prince, Wimo, Ali, Wu, & Prina, 2015). A worldwide action plan for dementia 2017–2025 highlights that people with dementia should be able to live in the community (World Health Organization, 2017). High-quality care services that meet the needs of home-dwelling people with dementia are therefore necessary. Norwegian national guidelines on dementia recommend day care services as a means for enabling people with dementia to live in their own homes for as long as possible (Ministry of Health & Care Services, 2015).

There have been some general concerns about the care provision for people with dementia. Sensory stimulation, social interaction and meaningful activities are identified as the three most prevalent unmet needs for people with dementia in a residential nursing home setting (Cohen-Mansfield, Dakheel-Ali, Marx, Thein, & Regier, 2015). Even though day care services are organised differently than long-term residential care, they are often situated in the same institutional environment. Strandenæs, Lund, and Rokstad (2019) study of day care services found that even though staff talked about the importance of getting to know the attendees to provide tailored activities and meaningful days, no examples of this was found in observations of attendees. Staff also expressed that there was too much focus on attendees' limitations indicating that there is a potential to offer more differentiated and tailored day care services (Strandenæs et al., 2019). This would be more in line with person-centred care, taking into account the person's own subjective experiences (Kitwood, 1997; Kitwood & Bredin, 1992). However, even though person-centred care for people with dementia was introduced more than 30 years ago, there still seem to be challenges related to the implementation of these underlying principles in daily care practices. The increased focus on person-centred care has nevertheless resulted in new types of care facilities being development (de Bruin, de Boer, Beerens, Buist, & Verbeek. 2017).

One such care facility is farm-based day care (FDC). A study from 2018 revealed that there were 33 FDC offers in Norway (Ibsen, Eriksen, & Patil, 2018). The number of FDC is still low as approximately 70% of day care offers, referred to as regular day care, are provided in connection to residential institutions for elderly people like nursing homes or sheltered housing (Gjøra, Eek, & Kirkevold, 2015). In both FDC and regular day care the municipal healthcare authorities are responsible for the quality of the care provided (Ibsen et al., 2018). However, in FDC the farmer or farmer's spouse is often the service provider, and farm buildings and connected outdoor areas provide the basis for many of the activities that are used in the service (Ibsen et al., 2018). Regardless of the setting, the Norwegian Ministry of Health and Care Services (2015) state that day care for people with dementia should include socially, cognitively and physically stimulating activities.

However, several differences between farm-based and regular care settings have been found. FDC attendees are more involved

## What is known about this topic

- Day care is a means to enable people with dementia to live in the community.
- Day care should provide socially, cognitively and physically stimulating activities.
- New types of small-scale care facilities for people with dementia have been developed, including day care provided at farms.

## What this paper adds

- Farm-based day care involves many familiar and daily activities, while typical activities at regular day care include doing quizzes, listening to staff reading and chair exercise.
- Attendees in farm-based day care are more outdoors and more physically active compared to attendees in regular day care.
- Attendees in farm-based day care experience more social interaction and positive mood compared to attendees in regular day care.

in familiar daily activities compared to regular day care attendees (Schols & van der Schriek-van Meel, 2006), and FDC have a more home-like atmosphere including a rich sensory environment compared to the typical institutional environment at regular day care (Myren, Enmarker, Hellzen, & Saur, 2017). Myren et al. (2017) also found that unlike regular day care attendees, FDC attendees were active in daily activities, which was understood to reflect the role of the physical and social environment in facilitating participation in activities and collaboration with staff. Another qualitative study found that FDC lead to a sense of community and identity for the attendees, as the everyday setting allowed them to participate in naturally occurring activities by taking on the role as a farm worker or a guest (Sudmann & Borsheim, 2017). This is in line with de Bruin et al. (2015) study where attendees also expressed that participating in FDC created a feeling of contributing to and belonging in society.

Furthermore, studies have found activities at FDC to be organised more in smaller groups compared to regular day care, and to be more varied, require higher levels of physical effort and take place outdoors more often (de Bruin et al., 2009). These findings have been corroborated by de Boer, Hamers, Zwakhalen, Tan, Beerens, et al. (2017) who found that activities took place outdoors more often at farm-based nursing homes compared to institutional nursing homes. Additionally, residents in farm-based nursing homes had fewer passive activities, displayed a higher level of engagement in the activities and experienced more social interaction (de Boer,

Hamers, Zwakhalen, Tan, Beerens, et al., 2017). Level of physical activity has also been investigated in a recent study by Garshol, Ellingsen-Dalskau, and Pedersen (2020) where attendees in FDC were significantly more physically active compared to attendees in regular day care.

In relation to well-being, studies have found that FDC attendees display less problematic behaviour compared to regular day care attendees (Schols & van der Schriek-van Meel, 2006). Also, residents in farm-based nursing homes have been found to have higher quality of life compared to residents in regular nursing homes, especially related to the domains positive affect, social relations and having something to do (de Boer, Hamers, Zwakhalen, Tan, & Verbeek, 2017). This corroborates the findings of Beerens et al., (2016) that residents with high quality of life did fewer passive activities, were more engaged in activities and had more social interaction compared to those with low quality of life.

Even though the mentioned studies suggest that farm-based care services may be a positive addition to care services for people with dementia, research in the area of FDC and regular day care is still limited. In the current study we therefore want to compare aspects of the care environment between FDC and regular day care. Type of activities taking place, engagement, physical effort, location, social interaction and mood will be investigated.

## 2 | METHOD

## 2.1 | Design and participants

Ecological momentary assessments (Shiffman, Stone, & Hufford, 2008) were used, making it possible to observe and compare aspects of the care environment related to activities, the social and physical environment and mood as they happened during one day of participants attending FDC or regular day care. A total of 88 home-dwelling people with dementia participated in the study, including 42 participants from 10 FDC offers and 46 participants from seven regular day care offers. Because FDC generally had smaller groups of attendees than regular day care, more FDC offers were included to get approximately the same number of participants from the two types of day care service. The current study was conducted anonymously with no collection of demographic information.

The included FDC offers were located in different regions of Norway, and the regular day care offers were recruited from the same geographical areas. The FDC offers were situated at ordinary farms in the community and had a varying degree of conventional farming activities taking place. A few of the farms had welfare services for other user groups, but these were not part of the everyday setting for the attendees at the day care service. Furthermore, the FDC offers often utilized a separate building on the farm as their base and all the farms had outdoor areas like gardens, courtyards, fields for keeping animals or growing crops, and walking trails. In addition, farm buildings like woodsheds, barns or workshops were

used. Regular day care offers were organised as units with own staff situated near, or within, residential nursing homes. One of the included offers had a mixed group. Here, the attendees would be separated into smaller groups, depending on whether they had a diagnosis of dementia or not, during some activities like reading the paper, while doing other activities together like having common meals and singing. All regular day care offers had access to outdoor areas like gardens, patios, walking trails or sensory gardens. In addition, they often had access to other types of services provided at the residential nursing home like hairdressers, doctor's offices, gyms or canteens.

#### 2.2 | Data collection

Data were collected between March and June 2018. Observations at FDC and regular day care offers were evenly spread out during this period to capture seasonal weather variations. Three researchers conducted the observations, alternating on working in pairs. Each day care offer was visited once. During this visit, a total of three to eight attendees were observed. The number of attendees being observed varied with regards to the total number of people attending the day care offer, whether some of the attendees had declined participation in the study, or whether some attendees were absent. On the day of doing the observations, two researchers arrived at the day care facility early in the morning to talk to staff. Staff provided necessary information about the attendees and presented the schedule for the day. This often comprised of breakfast in the morning, a coffee beak in the middle of the day and dinner in the afternoon, with two periods of activities or relaxation or both, in between. Staff was also informed that they could stop the observations at any point if they sensed that the attendees felt uncomfortable with the situation. To ensure a soft introduction, the researchers greeted all the attendees when they arrived in the morning, and often participated in the first half of the breakfast meal before staring the observations. Four hours of observations were conducted with a 30 min. break in the middle of the day. This fitted well with the opening hours at most of the included day care offers. Attendees were observed in random order for one minute three times per hour, resulting in 12 observations per participant. All together, 1,056 observations were conducted (504 observations at FDC (48%) and 552 observations at regular day care (52%)).

## 2.3 | Measurement

The ecological momentary assessments were done using The Maastricht Electronic Daily Life Observation tool (MEDLO-tool) (de Boer et al., 2016). This is a tablet-based observational tool designed to give insight about aspects of daily life for people with dementia in different care settings (Table 1). The MEDLO-tool has been shown to be valid and reliable (de Boer et al., 2016). Up to 8 people can be observed in one setting, and aspects of daily life observed includes



**TABLE 1** Categories of type of activity, engagement, physical effort, location, social interaction and mood used during the analysis and registered during the observations

registered during the observations			
Aspects of daily life	Categories used in analysis	Categories registered during observations	
Activity <sup>a</sup> 0 = No, the activity did not take place	Sitting	Sitting	
	Eating/drinking	Eating and drinking	
1 = Yes, activity took place	Quiz/music/spiritual	Playing cards, playing a game, doing a puzzle Music and singing Handcrafts/arts Spiritual or religious activity	
	Walking outdoors	Walking outdoors	
	Exercise and dancing	Chair exercise/sports  Dancing  Walking indoors (does not include pacing)	
	Reading	Reading (being read to), writing, crossword puzzle Watching television or listening to the radio	
	Farming and working with animals	Interacting with pets Working/contact with animals Gardening, taking care of plants Maintaining the farm Working with fire wood Cultivation of grains, fruits, berries, etc.	
	Domestic and cooking	Domestic activities Cooking and preparing food	
	Not observable/other	Unobservable Other	
Engagement	0 = No, not engaged in activity	Sleeping Gazing in the air Focus on something else than activity	
	1 = Yes, engaged in activity	Focus on activity taking place Active participation in activity	
Physical effort	0 = No, low level of physical effort	Sitting/lying quietly without movement Light-to-moderate sitting activity	
	1 = Yes, medium/high level of physical effort	Standing activity Walking around Cycling activity Whole-body movement	
Location	0 = No, indoor	Indoors at the unit Indoors outside the unit	
	1 = Yes, outdoor	Being outdoors	
Social interaction	0 = No, no social interaction	No social interaction Participant attempts to interact, but gets no response Environment attempts to interact, participant do not respond	
	1 = Yes, social interaction	Social interaction with someone else Social interaction with two or more people	
Mood	0 = No, neutral/negative mood	Great signs of negative mood Considerable signs of negative mood Small signs of negative mood Neutral mood	
	1 = Yes, positive mood	Small signs of positive mood Considerable signs of positive mood Great signs of positive mood	

<sup>&</sup>lt;sup>a</sup>One activity was registered for the observational minute. Then, engagement in this activity, level of physical effort, location, social interaction and mood during the activity were registered.

type of activity taking place, engagement, physical effort, location, social interaction and mood. In collaboration with the developers of the MELDO-tool, some adaptations were made to ensure a better fit

between the tool and the FDC context. This included replacing the activity "Farm work" with the five activities; Maintaining the farm and the surroundings, Working with animals, Other interactions with

farm animals (includes physical contact and watching the animals), Working with fire wood and Cultivation of grains/vegetables/berries, etc. The adapted MEDLO-tool was piloted at one FDC and one regular day care offer to ensure inter-rater reliability.

# 2.4 | Analysis

Statistics were produced using SPSS version 25.0 (IBM Corp., 2017), and the level of statistical significance was set to 0.05. Variables included in the analyses were as follows: type of activity taking place, if the attendee was actively engaged or not, was standing up/walking around or not, was outdoors or not, had social interaction with others or not and had positive mood or not (Table 1). The mean percentage of "yes" responses was calculated for each aspect of daily life to describe the care environment and content of the service for attendees at FDC and regular day care (Table 2). Furthermore, differences in aspects of daily life between FDC and regular day care were investigated with a linear mixed model. The hierarchical structure of the data, where several participants were sampled from the same day care offer and with multiple observations conducted per participant, leads to non-independence in the data material. A linear mixed model analysis, making it possible to separate within-group variability from between-group variability by including both fixed and random effects, was therefore chosen. The model had a fixed effect for type of day care service, repeated measurements were the individual observations of attendees and the random effect was attendees nested within day care offers. The rule of thumb of having at least 30 participants in each group when measuring group differences (VanVoorhis & Morgan, 2007) was met with the included 42 and 46 attendees from FDC and regular day care offers, respectively.

# 3 | RESULTS

All linear mixed model analyses were conducted with data from the total sample of 88 participants. No statistical differences between FDC and regular day care were found for the most commonly observed activities sitting (23.2% in total) (p = .55, SE 5.58) and joint meals (21.9% in total) (p = .98, SE 4.16) (Table 2). The three most common activities on FDC following sitting and common meals were farming and working with animals (17.3%) (which only occurred at the farms), walking outdoors (15.3%) and domestic and cooking activities (8.9%). Walking outdoors occurred significantly more often at FDC compared to regular day care (p = .007, SE 4.15), while no significant difference was found for domestic and cocking activities (p = .10, SE 4.64) (Table 2). The three most common activities in regular day care following sitting and common meals were quiz, music and spiritual activities (17.2%), exercise and dancing (11.8%) and listening to staff reading (10.9%). All these activities occurred significantly more at regular day care compared to FDC (p = .003, SE 3.20; p = .003, SE 3.32; p = .012, SE 3.32 respectively) (Table 2).

For the other aspects of daily life, the linear mixed model analysis showed that the level of engagement was high for both FDC and regular day care (99.4% observations of attendees participating in or focusing on the activity at FDC versus 97.5% at regular day care, p = .08, SE 1.05) (Table 2). However, the analysis also showed several statistically significant differences. Compared to regular day care attendees, FDC attendees had higher levels of physical effort (39.4% observations of attendees standing up or walking around at FDC versus 13.2% at regular day care, p < .001, SE 4.36), were more outdoors (42.3% observations of attendees being outdoor at FDC versus 2.6% at regular day care, p < .001, SE 7.79), experienced more social interaction (81.5% observations of social interaction taking place at FDC versus 64.3% at regular day care, p = .006, SE 5.55) and had more positive mood (94.2% observations of positive or very positive mood at FDC versus 79.6% at regular day care, p = .004, SE 4.42) (Table 2).

## 4 | DISCUSSION

This study showed similarities and differences regarding the activities taking place at FDC and regular day care. Results also showed that while engagement levels were high in both FDC and regular day care, the activities took place outdoors more often, required higher levels of physical effort and included more social interaction and positive mood at FDC.

First, a substantial part of the time was spent on common meals where the attendees enjoyed good wholesome food together with the staff at both types of day care. This confirms studies describing communal meals as one of the main activities in both FDC (Sudmann & Borsheim, 2017) and regular day care (Strandenæs, Lund, & Rokstad, 2018). Another similarity between FDC and regular day care was that about a quarter of the time was used for sitting down. When sitting, the attendee could be talking to someone, just relaxing or simply doing nothing. However, the type of activities attendees spent the remaining time on differed between FDC and regular day care. FDC attendees spent time on familiar, daily activities like, light gardening and maintenance work, raking, clearing snow, chopping firewood and taking care of animals. Furthermore, FDC attendees promenaded outdoors, and engaged in domestic chores like clearing the table, doing the dishes, preparing food and baking. In contrast, regular day care attendees spent time on quizzes, singing, listening to staff reading and indoor chair exercise groups.

These findings support studies describing farm-based care facilities as everyday settings and further strengthens the argument that the home-like atmosphere of the FDC seems to facilitate more naturally occurring, familiar, daily activities compared to the regular care setting (de Boer, Hamers, Zwakhalen, Tan, Beerens, et al., 2017; de Bruin et al., 2009; Myren et al., 2017; Schols & van der Schriek-van Meel, 2006; Sudmann & Borsheim, 2017). Knowing that these types of activities may provide attendees with a feeling of identity, belonging and the feeling of making a contribution (de Bruin et al., 2015; Sudmann & Borsheim, 2017), including more familiar

**TABLE 2** Mean percentage, standard deviation (*SD*), estimate of fixed effect, Standard error (*SE*), 95% confidence interval (CI) and *p*-values for a mixed-model analysis comparing type of activity, engagement, physical effort, location, social interaction and mood between farm-based and regular day care for people with dementia

Aspect of daily life	Category	Mean % (SD)	Estimate of fixed effect (SE)	95% CI	p- value <sup>a</sup>		
Activity	Sitting						
	Regular day care	21.92 (14.20)					
	Farm-based day care	24.60 (17.93)	3.43 (5.58)	-8.55-15.41	.549		
	Eating/drinking						
	Regular day care	22.10 (11.41)					
	Farm-based day care	21.63 (11.20)	0.09 (4.16)	-9.00-8.81	.983		
	Quiz/music/spiritual						
	Regular day care	17.21 (11.84)					
	Farm-based day care	6.15 (8.24)	-11.54 (3.20)	-18.554.53	.003		
	Walking outdoors						
	Regular day care	1.63 (4.52)					
	Farm-based day care	15.28 (13.13)	13.03 (4.15)	4.14-21.92	.007		
	Exercise and dancing						
	Regular day care	11.78 (11.73)			.003		
	Farm-based day care	1.19 (3.48)	-11.43 (3.32)	-18.474.40			
	Reading						
	Regular day care	10.87 (10.67)					
	Farm-based day care	1.98 (5.14)	-9.42 (3.32)	-16.482.37	.012		
	Domestic and cooking						
	Regular day care	1.63 (4.16)					
	Farm-based day care	8.93 (13.45)	8.14 (4.64)	-1.84-18.13	.102		
Engagement	Engaged in activity						
	Regular day care	97.45 (5.18)					
	Farm-based day care	99.40 (3.86)	1.95 (1.05)	0.27-4.18	.081		
Physical effort	Standing or walking around						
	Regular day care	13.22 (11.98)					
	Farm-based day care	39.43 (17.86)	25.88 (4.36)	16.46-35.31	.000		
Location	Being outdoors						
	Regular day care	2.57 (5.96)					
	Farm-based day care	42.28 (23.85)	39.75 (7.79)	23.07-56.44	.000		
Social interaction	Social interaction taking place						
	Regular day care	64.33 (21.73)					
	Farm-based day care	81.46 (19.87)	17.64 (5.55)	5.83-29.44	.006		
Mood	Positive mood						
	Regular day care	79.62 (19.57)					
	Farm-based day care	94.23 (14.32)	14.86 (4.42)	5.52-24.21	.004		

<sup>&</sup>lt;sup>a</sup>The activity "Farming and working with animals" was excluded from the analysis because it only took place at the farm-based day care.

and daily activities in regular day care could represent one important lesson to be learned from FDC.

Results related to the level of engagement, physical effort, location, social interaction and mood are mostly in line with other comparative studies of farm-based and regular care services. One exception is our finding that level of engagement did not differ between attendees

at FDC and regular day care. Such a difference has been found in a study comparing farm-based and regular nursing home residents (de Boer, Hamers, Zwakhalen, Tan, Beerens, et al., 2017). However, the level of engagement at both types of day care found in our study supports Strandenæs et al. (2019) finding that regular day care attendees had a generally high level of engagement. The two types of day care,

therefore, seem to provide attendees with activities that create engagement in line with the overall aim of such services.

The differences in time spent outdoors and level of physical effort between FDC and regular day care corroborates literature that has found activities at farm-based care facilities to take place outdoors more often and to required higher levels of physical effort compared to regular care facilities (de Boer, Hamers, Zwakhalen, Tan, Beerens, et al., 2017; de Bruin et al., 2009; Garshol et al., 2020). Activities at FDC, therefore, seem to facilitate for a higher level of physical effort, which has been related to improvements in physical functioning and being active in daily life (Blankevoort et al., 2010; Telenius, Engedal, & Bergland, 2015), better cognitive function (Groot et al., 2016) and reduced levels of depression (de Souto Barreto, Demougeot, Pillard, Lapeyre-Mestre, & Rolland, 2015) for people with dementia.

Furthermore, it is interesting that attendees at FDC spend so much more time outdoors compared to regular day care attendees. Farm buildings and different outdoor areas provide the basis for many of the activities taking place at FDC (Ibsen et al., 2018), and activities have been found to be more varied (de Bruin et al., 2009). This could indicate that outdoor areas invite to a greater variety of activities being offered to the attendees including gardening and taking care of animals. Outdoor activities may be considered a positive part of day care services as being outdoors have been found to lead to higher levels of physical activity, opportunities for relaxation as well as better overall health, mood and well-being for elderly people with dementia (Rappe & Topo, 2007; Wang & MacMillan, 2013; White et al., 2017). However, many regular day care offers also have access to outdoor areas like gardens, walking trails and sensory gardens (Gonzalez & Kirkevold, 2016). The reason why attendees at regular day care are not given the opportunity to go outside more, can therefore not be related to limited access to outdoor areas alone, but probably also reflect organisational issues and attitudes of staff (de Bruin et al., 2017).

Next, results showed that FDC attendees had significantly more social interaction compared to regular day care attendees. Such a difference has also been found for nursing homes where residents living on a farm experienced more social interaction compared to residents in a regular nursing home (de Boer, Hamers, Zwakhalen, Tan, Beerens, et al., 2017). In addition, results showed that FDC attendees had significantly more positive mood than regular day care attendees. Both social interaction and positive mood has been related to higher quality of life for day care attendees and nursing home residents (Beerens et al., 2016; Boer, Hamers, Zwakhalen, Tan, & Verbeek, 2017), and FDC seems to effectively elicit these aspects of the care environment.

# 4.1 | Limitations and strengths

Some methodological issues should be considered. The most important limitation is the lack of demographic information about the participants. Ideally, we wanted to collect demographic data to be able to make comparisons between attendees at FDC and regular day care. However, logistic and practical considerations

regarding recruitment in the main project of this study made this impossible. Studies describing attendees at FDC and regular day care in Norway could therefore be relevant to consider. Rokstad et al., 2017 found that attendees in regular day care were about 60% women, 22% had a possible dementia, 65% had a mild dementia and the average age was 81. However, the average age of 81 may give an indication of an artificially high age as only attendees above the age of 65 were included in the study (Rokstad et al., 2017). In comparison, Ibsen et al. (2018) found that attendees at FDC were about 60% men, most reported mild dementia and the average age was 76. These findings are also in line with Garshol et al. (2020) who found that attendees at FDC consisted of significantly more men, were significantly younger and had better physical function compared to attendees at regular day care. However, Garshol et al. (2020) also found that the level of dementia was rated as mild for both groups. Therefore, it is reasonable to assume that there may be significant differences between FDC and regular day care attendees in the current study that could account for some of the differences found in aspects related to the care environment. However, these studies also show that attendees at FDC and regular day care are not completely different groups, but also have a great overlap regarding age, gender and level of dementia rating. Therefore, it is fair to assume that the differences found in this study were not based on differences between attendees alone but also reflect some characteristics regarding the type of day care provided for the two groups. Future studies should include demographic information. Last, the use of ecological momentary assessments, making it possible to gather information about aspects of daily life in real time, is a strength. Such data could provide more precise information about the daily care environment for the attendees compared to measurements based on retrospective thinking or proxy data (Shiffman et al., 2008).

## 5 | CONCLUSION

The main purpose of day care for people with dementia is to, regardless of the setting, provide socially, cognitively and physically stimulating activities for the attendees. This study may contribute with valuable information about day care provided in two different settings. The results showed that FDC had more familiar, daily activities important to meet the social and activity needs of people with dementia, compared to regular day care. Based on this study it seems that regular day care could increase their quality of care by incorporating aspects of care practices related to FDC. One lesson to be learned is that regular day care could include more familiar, daily activities as studies have found this to be important for attendees' sense of identity and feelings of contributing. Another lesson to be learned is that regular day care services could utilise the potential of their available outdoor areas, as outdoor activities have been related to increased physical effort, relaxation, health and well-being in the literature.

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#### **CONFLICTS OF INTEREST**

The authors declare no conflicts of interest.

#### **ETHICAL STATEMENT**

The current study was approved by the Norwegian Centre for Research Data (No. 49799). Participants and their next of kin were informed about the purpose of the study, participant anonymity and rights to decline participation. Oral or written consent was obtained from all participants.

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