

A NOVEL WAY TO STIMULATE DIETARY INTAKE OF COMMUNITY-DWELLING OLDER PEOPLE WITH DEMENTIA?

DAY CARE AT GREEN CARE FARMS: A NOVEL WAY TO STIMULATE DIETARY INTAKE OF COMMUNITY-DWELLING OLDER PEOPLE WITH DEMENTIA?

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Abstract: *Objective:* This study aimed to compare dietary intake of older people with dementia receiving day care at regular day care facilities (RDCFs) or at so-called green care farms (GCFs). *Design and settings:* A comparative cross-sectional study was performed at 10 GCFs and 10 RDCFs in the Netherlands. *Participants:* 30 subjects from GCFs and 23 subjects from RDCFs, aged 65 years or over, were included in the study. Subjects from GCFs were mostly married males who were aged younger than the subjects from RDCFs who were mostly widowed females. *Measurements:* Dietary intake of the subjects was observed and/or recorded both at home and during their time at the day care facility. *Results:* In the GCF group, average total energy intake was significantly higher than in the RDCF group (8.8 MJ/d vs. 7.2 MJ/d). Also total carbohydrates and protein intakes were higher in the GCF group than in the RDCF group (with 257 g/d vs. 204 g/d, and 76 g/d vs. 65 g/d respectively). In addition, average total fluid intake was significantly higher in the GCF group than in the RDCF group (2577 g/d vs. 1973 g/d). Multiple linear regression analyses revealed that after taking possible confounders into account, day care type was still significantly related to the intake of energy, carbohydrates and fluids. *Conclusion:* This study suggests beneficial effects of this new type of day care on dietary intake by community-dwelling older people with dementia.

Key words: Green care farms, regular day care facilities, dietary intake, older people with dementia.

Introduction

The Dutch society is rapidly ageing. Currently about 15% of the population is older than 65 years, and this percentage is predicted to reach 24% by 2050 (1, 2). This trend is typical for the western part of the world (3). Ageing is associated with decreased appetite and insufficient food intake (4, 5). The resulting weight loss and malnutrition (6, 7) may lead to a declining functional status (6), an increased morbidity and mortality (7, 8), earlier institutionalization (9, 10), and a decreased quality of life (6, 11-13). Older people suffering from dementia, especially Alzheimer's Disease, may be even more prone to malnutrition and weight loss (14, 15).

Almost two-thirds of dementia patients in the Netherlands live at home (16). There are two types of day care facilities for these community-dwelling frail older people: regular day care facilities (RDCFs), mostly housed in residential homes, and day care services provided at farms, so-called green care farms (GCFs). Both aim to realize a structured and meaningful day program and offer respite care for family caregivers. GCFs offer day care services since approximately 2000, and are meant for people with care needs, including frail older people, mentally disabled people, and psychiatric patients. At these farms, people can spend the day and take part in farm-related and outdoor activities (17).

As many community-dwelling older people with dementia attend a day care facility (16), it is of importance to gain insight into the impact of these facilities on dietary intake. Earlier studies have shown that the eating environment, day program and activity level of older people with dementia differ between GCFs and RDCFs (17, 18). As there are indications that physical activity (19) and the eating environment (20, 21) benefit dietary intake of older people, the aim of the present study was to compare dietary intake of older people with dementia attending day care at GCFs or RDCFs.

Methods

Design

This comparative cross-sectional study was performed between November 2006 and May 2008. Older people with dementia were recruited from ten GCFs and ten RDCFs in the Netherlands. Only GCFs having frail older people as their main target group and offering day care to groups of 5 to 15 people per day were included in the study. The recruited RDCFs were mostly located in the same region as the GCFs to limit the possible impact of regional differences.

Settings

Green care farms. GCFs have a relatively normal home-like character. They offer, in addition to leisure and recreational activities, normal home-like and farm-like activities, such as

dish-washing, gardening, feeding animals, and sweeping the yard. GCFs offer services to older people with and without dementia. The number of both types of older people within the day care group vary per GCF and per day. A study of De Bruin et al. (18) suggests that older people with dementia attending day care at GCFs are more physically active than those attending RDCFs, due to more outdoor and farm-related activities. GCFs provide a hot meal at lunch time, and drinks and snacks during the remainder of the day. The participants are often involved in the meal preparation by getting vegetables from the garden, chopping vegetables, and peeling potatoes. The table dressing at mealtime is home-like: the meal is served in dishes, the participants can serve themselves, and normal cutlery and crockery are used. At coffee and tea breaks home-baked snacks and/or fresh fruits from the orchard are often served (18).

Regular day care facilities. RDCFs traditionally have a strong care orientation, related to the residential home environment in which they are often housed. Like GCFs, RDCFs offer services to older people with and without dementia. Also here, numbers of both types of older people within the day care group vary per RDCF and per day. RDCFs mainly offer leisure and recreational activities that are mostly performed indoors. They do not offer individual treatment by a multidisciplinary team, as opposed to psychogeriatric day care facilities mostly housed in nursing homes (22). RDCFs provide a hot meal at lunch time, and drinks and snacks during the remainder of the day. The hot meal is often provided in an institutional way: it is served in plastic cups and pre-designed plates divided into three sections on individually pre-plated trays. The meal is mostly prepared in a central professional kitchen (18).

Subjects

Thirty subjects attended day care at GCFs and 25 subjects at RDCFs. For privacy reasons, contact persons at the participating GCFs and RDCFs, instead of the researchers, enrolled subjects and their primary family caregivers in this study. Inclusion criteria were: 1. approval to attend day care, provided by Central Indication Committee for Care (CICC) assessing eligibility for day care; 2. dementia syndrome, according to report of CICC; 3. age ≥ 65 years; 4. living at home; 5. primary family caregiver willing to participate in the study. Dietary intake of the subjects was registered during 1 or 2 weekdays depending on attendance frequency. On average, the subjects spent 6 hours per day, from 10.00 - 16.00, at the facility.

Informed consent was obtained from primary family caregivers of the older people with dementia. The Medical Ethics Committee of Wageningen University approved the study protocol.

Data collection and procedures

Total daily dietary intake on the day the subjects attended a day care facility was recorded by registering intakes at home and at the day care facility. With this approach we could

establish whether differences between the two day care settings (i.e. mealtime ambiance, physical activity level of subjects) would result into differences in dietary intake between subjects from both day care settings both at the day care facility and at home, and would thus result into differences in their total daily dietary intakes. Subjects and their primary family caregiver were instructed to use a food diary for the registration of breakfast, evening meal and snacks consumed at home. Brand names and amounts were recorded using household measures like 'cup' and 'glass', and standard portion sizes like 'slice', 'bar', and 'cube'. The diaries were checked by the researchers, and subjects and their family caregivers were contacted in case of any inadequacies or inconsistencies.

At the day care facilities, researchers of Wageningen University observed and recorded all foods and drinks consumed by the subjects. The researchers were trained by a research dietician in order to standardize the observation procedures. They used a food diary to record foods and drinks consumed during the day of day care. Amounts consumed were recorded in terms of household measures and standard portion sizes, with the exception of foods and drinks consumed during the cooked meal. These amounts were determined by weighing the meal and its leftovers. Recipes and preparation methods were obtained from the kitchen staff.

Information on sex, age, number of months at the day care facility, number of days of day care per week, marital status, housing situation, medication use, and smoking status of the subjects was obtained from the professional caregivers at the day care facility or the family caregivers.

Shortly after the arrival of the subjects at the day care facility, cognitive functioning of the subjects was assessed by the Mini Mental State Examination (MMSE). Scores on the MMSE range from 0 to 30, with scores less or equal to 23 suggesting cognitive impairment (23). Further, the nutritional status was measured by the Mini Nutritional assessment (MNA), and some anthropometric measurements. The MNA, completed on the basis of information collected from family caregivers and observations by the researchers, assesses the risk of malnutrition in older people. Scores range from 0 to 30, and distinguish: adequate nutritional status (≥ 24) or risk for malnutrition (17 - 23.5) from protein-calorie undernutrition (< 17) (24). Body weight was measured to the nearest 0.1 kg, with subjects wearing normal clothing without shoes. Height was measured to the nearest 0.1 cm using a height meter. For those subjects who were not able to stand upright, information on body weight was collected from the family caregiver at home, and height was estimated as: height (in cm) = $3.16 \times \text{knee-to-floor height (in cm)}$ (25). Body mass index (BMI) was calculated as weight in kilograms divided by (estimated) height in meters squared.

Appetite was evaluated by administering the Simplified Nutritional Appetite Questionnaire (SNAQ) to the subjects. Scores range from 4 to 20, and distinguish people with an increased risk for at least 5% weight loss within 6 months (≤ 14) from those without an increased risk (> 14) (26).

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Statistical analyses

Characteristics of the GCF and RDCF group were compared by means of Fisher's Exact Test, Chi square test for independence, Mann-Whitney U test, and independent-samples t-test, as appropriate. Differences were considered significant at $p \leq 0.05$.

To analyze differences in dietary intake between the GCF and RDCF groups, nutrients were quantified using the VBS food calculation system (BAS Nutrition Software) based on the Dutch Nutrient Database (27). The following parameters were obtained: individual intake of energy (kJ/day), macronutrient intake (protein, carbohydrate, fat) (g/day) and fluids derived from foods and beverages (g/day). For subjects attending the day care facility 1 day per week, dietary intake was registered during 1 weekday. For those who attended the day care facility 2 or more days a week, dietary intake was registered during 2 weekdays. In those cases, the average was used in the analyses. Intakes at home and at the day care facility were summed to obtain total daily dietary intake.

Multiple linear regression was used to assess determinants of total energy intake, macronutrient and fluid intake separately. In addition to the type of day care facility, possible confounders identified by comparing group characteristics, were always included in the models. In addition, medication use (28, 29) and interactions were included when $p \leq 0.10$. The effect of day care type was considered statistically significant at the $p \leq 0.05$ level. To prevent multi-collinearity problems, interactions were omitted when they showed a high correlation (≥ 0.80) with the independent variables. Post-hoc analyses on place of dietary intake (at home or at the day care facility) were performed in an

identical manner. The effect of day care type was considered statistically significant at the $p \leq 0.01$ level to reduce the multiple testing effect. All analyses were done using SPSS for Windows, release 15.0, 2006 (Chicago: SPSS Inc.).

Results

General characteristics

The majority (83%) of the GCF group were males, whereas of the RDCF group 30% was of this gender (Table 1). The mean age in the GCF group was lower than in the RDCF group (77.6 vs. 81.9 years), and a larger proportion was married (83% vs. 48%). The average SNAQ score was significantly higher in the GCF group than in the RDCF group ($p = .007$). Of the GCF group, 7% and 10% showed risk of weight loss within 6 months according to their SNAQ score or risk of malnutrition according to their MNA score respectively. Of the RDCF group these proportions were 26% for both parameters.

In view of differences between both groups in gender, age, marital status and SNAQ score, these variables were included as possible confounders in our regression models.

Total dietary intake

Crude analyses revealed that in the GCF group, average total energy intake was significantly higher than that in the RDCF group (8825 kJ/day vs. 7165 kJ/d). Also the total intake of carbohydrates and protein was higher in the GCF group than in the RDCF group (with 257 g/d vs. 204 g/d, and 76 g/d vs. 65 g/d respectively). In addition, average total fluid intake was significantly higher in the GCF group than in the RDCF group (2577 g/d vs. 1973 g/d) (Table 2).

Table 1

General characteristics of subjects attending day care at GCFs or RDCFs. Data shown as mean (SD; median) or as frequency (percentage)

| Characteristics | GCF (n = 30) | RDCF (n = 23) | Test statistic | p |
|---|--------------------|--------------------------------|----------------|-------|
| Sex ^a | | | | |
| Male | 25 (83%) | 7 (30%) | - | <.001 |
| Female | 5 (17%) | 16 (70%) | | |
| Age (years) ^d | 77.6 (±6.0) | 81.9 (±5.7) | t = -2.6 | .011 |
| Marital status ^a | | | | |
| Married/cohabiting | 25 (83%) | 11 (48%) | - | .008 |
| Widowed | 5 (17%) | 12 (52%) | | |
| Housing situation ^a | | | | |
| Private accommodation with partner and/or children or others | 28 (93%) | 21 (91%) | - | 1.00 |
| Sheltered accommodation | 2 (7%) | 2 (9%) | | |
| Number of months at day care facility ^c | 13.7 (±14.6; 7.5) | 11.8 (±8.8; 9.3) | z = -0.2 | .879 |
| Number of days per week at day care facility ^c | 2.3 (±0.8; 2.0) | 2.6 (±1.1; 1.0) | z = -0.8 | .402 |
| Medication use (number) ^c | 5.1 (±2.7; 5.0) | 4.3 (±4.0; 2.8) | z = -1.2 | .247 |
| Smoking status ^b | | | | |
| Currently smoking | 5 (17%) | 3 (13%) | 2 = 0.5 | .775 |
| Regularly smoked in the past | 9 (30%) | 9 (39%) | | |
| Never smoked | 16 (53%) | 11 (48%) | | |
| Cognitive functioning (MMSE) ^c | 19.3 (±6.2; 20.0) | 18.8 (±7.0; 20.0) ^e | z = -0.1 | .940 |
| Appetite (SNAQ) ^c | 16.6 (±1.3; 16.5) | 15.1 (±2.3; 15.0) | z = -2.7 | .007 |
| Presence of older people at risk of weight loss ^a | | | | |
| Not at risk (>14) | 28 (93%) | 17 (74%) | - | .065 |
| At risk (≤14) | 2 (7%) | 6 (26%) | | |
| Risk of malnutrition (MNA) ³ | 25.6 (±2.5; 26.0) | 25.0 (±3.4; 25.5) | z = -0.3 | .759 |
| Presence of older people with risk of malnutrition ^a | | | | |
| Adequate nutritional status (≥ 24) | 27 (90%) | 17 (74%) | - | .154 |
| At risk for malnutrition (17–23.5) | 3 (10%) | 6 (26%) | | |
| Body weight (kg) ^c | 77.6 (±13.0; 79.0) | 72.2 (±13.5; 72.0) | z = -1.5 | .134 |
| BMI (kg/m ²) ^c | 27.1 (±3.3) | 27.6 (±4.1) | z = -0.3 | .753 |

a-d. Differences were analyzed using Fisher's Exact Test; Chi square test for independence; Mann-Whitney U Test; independent-samples t-test respectively; e. Mean was calculated with data of 5 subjects excluded as scores were not obtained reliably.

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Taking possible confounders into account, day care type was still significantly related to total energy intake, intake of carbohydrates and fluid intake. Compared to attending day care at a RDCF, attending day care at a GCF increased energy intake with 1159 kJ/d ($\beta=0.3$, $p = .046$), carbohydrates intake with 39 g/d ($\beta=0.3$, $p = .034$), and fluid intake with 414 g/d ($\beta=0.4$, $p = .012$). Day care type did not significantly contribute to protein and fat intake. Also the number of medications significantly contributed to total fluid intake. For each additional medicine, fluid intake increased with 83 g/day ($\beta=0.4$, $p = .001$).

Dietary intake at day care facility

Crude analyses showed that energy and fluid intake at the day care facility was significantly higher in the GCF group than in the RDCF group (with 4330 kJ/d vs. 3535 kJ/d, and 1375 g/d vs. 1068 g/d, respectively) (Table 2). In addition, carbohydrates intake at the day care facility was significantly higher in the GCF group than in the RDCF group (125 g/d vs. 97 g/d). After taking possible confounders into account, day care type was no longer significantly related to any of the outcome variables (Table 2).

Dietary intake at home

Crude analyses revealed that in the GCF group, the energy and fluid intake at home were significantly higher than in the RDCF group (with 4495 kJ/d vs. 3624 kJ/d, and 1203 g/d vs. 905 g/d, respectively) (Table 2). Also the carbohydrates and protein intake at home was significantly higher in the GCF group than in the RDCF group (with 132 g/d vs. 108 g/d, and 38 g/d vs. 31 g/d, respectively). After taking possible confounders into account, day care type was no longer significantly related to any of the outcome variables, while

medication use was. For each additional medicine, fluid intake increased with 52 g/d ($\beta=0.4$, $p = .010$).

Discussion

The present comparative cross-sectional study in community-dwelling older people with dementia, showed that attending day care at a GCF benefits total daily energy, fluid, and carbohydrate intake. For assessing these intakes, standardized procedures were used to collect dietary intake data reliably (19, 21, 30, 31). To limit burden on the subjects and their family caregivers, who completed the food diaries, the use of household measures and standard portion sizes was preferred over weighing the foods and drinks. The limitation, however, is that these measures may not precisely reflect the amounts consumed. Other limitations of self-reported consumption may be altered normal food consumption, and inaccurate (32) or incomplete reporting, particularly in those subjects whose caregivers were not present all day. However, by contacting the subjects and their caregivers in case of inadequacies and inconsistencies, we believe to have taken this into account sufficiently.

The average daily energy intake in the current study population approached the recommended daily energy intake for people aged over 70 years (33) (Table 3). Fluid intake was above the minimum recommendations for older people (29). Energy and fluid intake were in accordance with intakes measured in earlier European studies among community-dwelling older people (5, 34-36). The mean daily energy and fluid intake in our study population was higher than that of institutionalized older people (21, 30, 37-39).

Although the average energy intake in this study population approached the recommendations (33), appetite assessment by

Table 2
 Dietary intake (total, at day care facility, at home) of subjects at GCFs and RDCFs

| Dietary intake | GCF (n = 30) (Mean ± SD) | Day care type RDCF (n=23) (Mean ± SD) | p (*) | B (se) | Effect of day care type β | p (**) |
|-----------------------------|-----------------------------|---|-------|------------|------------------------------------|--------|
| <i>Main analyses</i> | | | | | | |
| <i>Total</i> | | | | | | |
| Energy (kJ/d) | 8825 ± 1848 | 7165 ± 1302 | .001 | 1159 (565) | 0.3 | .046 |
| Carbohydrates (g/d) | 257 ± 59 | 204 ± 41 | <.001 | 39 (18) | 0.3 | .034 |
| Protein (g/d) | 76 ± 17 | 65 ± 12 | .007 | 6 (5) | 0.2 | .290 |
| Fat (g/day) | 79 ± 22 | 69 ± 16 | .056 | 4 (7) | 0.1 | .568 |
| Fluid intake (g/d) | 2577 ± 532 | 1973 ± 438 | <.001 | 414 (159) | 0.4 | .012 |
| <i>Post-hoc analyses</i> | | | | | | |
| <i>At day care facility</i> | | | | | | |
| Energy intake (kJ/d) | 4330 ± 1240 | 3535 ± 1053 | .017 | 415 (405) | 0.2 | .310 |
| Carbohydrates (g/d) | 125 ± 33 | 97 ± 29 | .002 | 19 (11) | 0.3 | .089 |
| Protein (g/d) | 39 ± 11 | 34 ± 10 | .091 | - | - | - |
| Fluid intake (g/d) | 1375 ± 269 | 1068 ± 236 | <.001 | 204 (85) | 0.3 | .021 |
| <i>At home</i> | | | | | | |
| Energy intake (kJ/d) | 4495 ± 1400 | 3624 ± 993 | .014 | 757 (431) | 0.3 | .085 |
| Carbohydrates (g/d) | 132 ± 49 | 108 ± 29 | .038 | 21 (14) | 0.3 | .145 |
| Protein (g/d) | 38 ± 13 | 31 ± 12 | .051 | - | - | - |
| Fluid intake (g/d) | 1203 ± 415 | 905 ± 306 | .006 | 210 (126) | 0.3 | .101 |

(*) Unadjusted; (**) Adjusted for gender, age, marital status, and SNAQ score. Total fluid intake and fluid intake at home, were in addition adjusted for the number of medications that were used; B = unstandardized regression coefficient; β = standardized regression coefficient.

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Table 3

Energy intake and fluid intake in the current study population compared to recommendations and intakes by other study populations. Data are shown as means or as range of means

| Authors | N | Age | Energy intake (MJ/d) | Fluid intake (g/d) |
|---|----------------------|------------------|--------------------------|----------------------------|
| <i>Recommendations</i> | | | | |
| Health Council of the Netherlands (33) | - | > 70 | M: 9.3; F: 7.8 | - |
| Schols et al. (29) | - | Elderly people | - | at least 1700 |
| <i>Community-dwelling older people</i> | | | | |
| Current study | M: 32; F: 21 | M: 77.9; F: 81.9 | M: 8.6; F: 7.3 | M: 2491; F: 2047 |
| Moreiras et al. (5), total study population | M: 571; F: 603 | 75-80 | M: 7.9-12.1; F: 5.5-10.2 | - |
| Moreiras et al. (5), Dutch study population | M: 52; F: 69 | 75-80 | M: 9.2; F: 7.6 | - |
| Fabian and Elmadafa (34) | M: ± 6000; F: ± 7800 | ≥55 | M: 7.4-12.3; F: 5.5-9.7 | - |
| Haveman-Nies(35), total study population | M: 629; F: 696 | 75-80 | - | M: 1860-2318; F: 1605-2186 |
| Haveman-Nies(35), Dutch study population | M: 52; F: 69 | 75-80 | - | M: 2239; F: 2186 |
| Volkert et al. (36) | M: 583; F: 789 | ≥65 | - | M: 2487; F: 2311 |
| <i>Institutionalized older people</i> | | | | |
| Nijs et al. (21) | 178 | 77 | 6.3 | - |
| Suominen et al. (38) | 23 | 82 | 5.4 | - |
| Lammes and Akner (50) | M: 11; F: 41 | M: 81; F: 85 | M: 7.2; F: 6.0 | - |
| Armstrong-Esther (37) | M: 16; F: 41 | 68 - 90 | - | 1085* |
| Gaspar (39) | 99 | 85 | - | 1968 |

M= Males; F=Females; * Derived from available data.

the SNAQ and malnutrition assessment by the MNA revealed 15% of the total study population to be at risk for weight loss and 17% to be at risk for malnutrition. Sub-analyses revealed that energy intake of subjects at risk for weight loss or for malnutrition was on average 1300 kJ/d and 900 kJ/d lower respectively, compared to energy intake of subjects not at risk.

The current study showed that the subjects attending day care at a GCF differed in several aspects from their counterparts attending day care at a RDCF. The GCF group mainly consisted of married men who were on average younger than the subjects in the RDCF group that consisted mainly of widowed women. Although literature suggests gender, age and marital status to be related to several health outcomes (40-43), we did not detect differences in cognitive functioning, functional status and medication use between older people with dementia in both settings (44, 45). It is therefore unlikely that the observed differences in dietary intake in the current study can be explained by health differences between both groups.

A more likely explanation for the observed differences is the home-like eating environment at GCFs. The social context and environmental ambiance are considered as important factors for dietary intake of older people (46), and may therefore have increased the intake of energy and carbohydrates, which is in line with studies of Gibbons and Henry (20) and Nijs et al. (21). A beneficial effect of the environmental ambiance on fat and protein intake, as suggested by Gibbons and Henry (20), was not observed in the current study. It is unsure if the higher fluid intake at GCFs is also related to the home-like eating environment. An alternative explanation for this finding may be a higher frequency of serving drinks at GCFs than at RDCFs.

Also a higher activity level of the GCF group (18), leading to increased energy expenditure and appetite, may explain the higher energy intake at in the GCF group. However, evidence for such an interaction is inconclusive (47, 48), and seems to

vary among individuals (49). A study of De Jong et al. (19) in frail older people showed a small effect (~ 0.5 MJ/d) of physical activity on energy intake. The difference in energy intake observed in the current study was 1.2 MJ/d. Physical activity may therefore explain only part of the observed difference.

Although the results of our study are promising, we should acknowledge the relatively limited number of subjects included and the unequal distribution of the genders over both settings. As the study was observational, subjects were not randomly assigned to one of the two settings. Despite efforts to include a similar number of subjects from both genders in both settings, we noticed that either the number of women or men was low at the participating GCFs and RDCFs respectively, or that those present did not fulfill the study's inclusion criteria.

It should further be noted that due to small numbers per day care facility, the possible effect of individual GCFs or RDCFs could not be investigated. Within GCFs or within RDCFs there may have been differences in factors important for dietary intake, such as the size of the portions offered, meat and fish consumption, the use of low-fat products, and the frequency of serving drinks. In addition, the number of observation days per day care facility was low which may have decreased the reliability of the estimates.

For future studies we therefore recommend to include higher numbers of GCFs and RDCFs, and more observation days per facility. This may decrease the effect of individual days and provide insight into differences between and within GCFs and RDCFs that are related to their strategies to increase dietary intake in older people with dementia. It is further recommended to add observations on days that the subjects are not going to a day care facility, to establish whether the time spent on the day care facility maintains or improves nutritional status sufficiently. Other additional interventions or strategies may be

necessary to counteract malnutrition and dehydration in this population.

Conclusion

The current study suggests that the new type of day care provided at GCFs stimulates dietary intake in community-dwelling older people with dementia. Considering the fact that many of them attend a day care facility, it is of importance to further investigate which factors contributed to the increased dietary intake. In this way, also RDCFs may be encouraged to develop strategies to counteract weight loss and malnutrition in this growing group of community-dwelling older people with dementia.

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