DANCE/MOVEMENT THERAPEUTIC METHODS IN MANAGEMENT OF DEMENTIA

To the Editor: Dance and rhythmic movement has been used in expressing and modifying emotions for centuries. Dance/Movement Therapy (DMT) as a form of art therapy has been used in the Western world since the early 1950s.1–3 Because DMT combines music, light exercise, and sensory stimulation, it would seem to fulfill the American Academy of Neurology’s recommendations for non-pharmacological treatment of dementia.4 We developed DMT procedures applicable to dementia nursing homes, where staff does not have formal dance/movement therapist training and evaluated whether weekly DMT sessions over a 4-month period would improve the verbal and cognitive level or alleviate the behavioral symptoms of patients with dementia.

Four patients with moderate to severe Alzheimer’s disease formed the study group. All patients were receiving cholinesterase-inhibitor treatment and antipsychotic or antidepressant medication, which remained stable during the intervention. The dance/movement group met once a week in a DMT experimental group than in controls.2 This double-baseline paradigm was used, small group size hindered any meaningful statistical comparison and makes generalizations difficult. We still believe that at least some patients with dementia benefit from DMT intervention. Cognitive performance has traditionally not been the focus of DMT research, and therefore it has seldom been measured. In one study with older patients with brain trauma or nonprogressing stroke, cognitive performance was better in a DMT experimental group than in controls.2

Three of the patients also remained relatively stable during the study period. We had anticipated a decrease in apathy or depression, but, in general, such an effect was not found. The staff observed an increase in the willingness to interact socially.

This pilot study was able to demonstrate the applicability of DMT in a nursing home setting; the sessions were successfully incorporated into the nursing home schedule, and the staff was able to lead the group with monthly supervision. The results concerning the effects of DMT on dementia symptoms are only preliminary. Although a double-baseline paradigm was used, small group size hindered any meaningful statistical comparison and makes generalizations difficult. We still believe that at least some patients with dementia benefit from DMT intervention. Cognitive performance has traditionally not been the focus of DMT research, and therefore it has seldom been measured. In one study with older patients with brain trauma or nonprogressing stroke, cognitive performance was better in a DMT experimental group than in controls.2

Overall cognitive level was assessed using the Mini-Mental State Examination (MMSE) at a week before, during (at Weeks 6 and 15), and 4 weeks after the intervention. Behavioral symptoms were assessed using the Neuropsychiatric Inventory at baseline, Week 12, and 4 weeks after the end of the intervention. A picture-description task was used to elicit comparable samples of narrative speech. Assessments were performed twice a week before the beginning of the intervention (double-baseline), during the intervention (at Weeks 1, 6, 10, and 15), and 4 weeks after the end of the intervention. During the intervention, verbal output was measured both before and after each session. Five different pictures were used. The Cookie Theft picture from the Boston Diagnostic Aphasia Test Battery was presented in the first (the first baseline) and last (follow-up) test sessions. The other four pictures were prints of colorful paintings with approximately the same number of details. Samples were videotaped, transcribed, and scored using the number of information units (IUs) as a measure of narrative speech.8,9

The dance/movement group seemed to have a favorable effect on language abilities. The subjects produced on an average more IUs in narrative speech immediately after a group session than before it, although the difference did not reach statistical significance (all four sessions combined, Sign test \( P = .134 \)). There was individual variability in the increase of IUs, and the immediate effect seemed to be shrinking toward the end of the study period. The subjects also produced more IUs at the last part of the intervention period than at baseline. The number of IUs still remained elevated at the follow-up (Figure 1). The difference between the three measures reached statistical significance (Friedman’s analysis of variance \( P = .018 \)).

The overall cognitive level of the Alzheimer’s patients remained unchanged (MMSE scores mostly within two points). The fact that clear progression was not seen during the 5-month study period can be interpreted positively, given the nature of the disease. The behavioral symptoms also remained relatively stable during the study period. We had anticipated a decrease in apathy or depression, but, in general, such an effect was not found. The staff observed an increase in the willingness to interact socially.
indicates that, under favorable circumstances, DMT may be beneficial to higher cortical functions.

Because this is a pilot study, the main interest was in the applicability of this method. A larger and controlled study on the effects of DMT in dementia management will be launched next.

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POSSIBLE MODEL FOR SUCCESSFUL CARE: BURDEN OF CAREGIVERS OF CENTENARIANS

To the Editor: By 2015, older people will account for 25% of the Japanese population. Aging of the population is not limited to Japan but is occurring in many other countries. Although long life is an age-old desire, modern society is realizing that living in good health is essential if longevity is to be fulfilled. The change in emphasis from living for living’s sake to a search for a better quality of life has become an important consideration in the administration of health care. As a representative model for successful aging, people who celebrated their 100th birthdays were interviewed to ascertain what it was like to survive serious illnesses and live on in relatively good health.

These centenarians have been studied in terms of basic medical care, genetic background, psychological make-up, and nutrition to determine which factors favor a long, healthy life. Although current research has examined the contributions of individual factors, few reports have examined the total care system. Even when a social care system is able to oversee the day-to-day responsibilities of caring for older people, the main pillar is still the family. With the burden placed on caregivers receiving more attention, the Japanese government began to issue Care Insurance in 2000. Because centenarians’ families have had to provide moderate levels of care, their pattern of care would be a possible model of successful care.

The authors studied 75 centenarians and their caregivers who lived in the Tokyo metropolitan area. Thirty-one caregivers who cared for people between the ages of 70 and 90 (average ± standard deviation = 79 ± 7) were chosen as a control group. A questionnaire inquiring about the primary caregiver was mailed to each subject. Questions included age, self-rated health, illness, level of fatigue of the caregivers, relationship with the care recipient, and care recipients’ activities of daily living (ADLs). ADL were analyzed using the Barthel index. To measure the level of caregiver fatigue, the modified Accumulated Fatigue Questionnaire (m-AF Q) issued by the Institute for Science of Labor was used. The m-AF Q includes scales for anxiety, depression, decreased vitality, irritation, daily fatigue, chronic fatigue, and physical imbalance. The level of fatigue was correlated with age, self-rated health, caregivers’ health, relationship with care recipient, and care recipient’s ADLs.

The caregivers consisted of daughters-in-law (44%), daughters (32%), sons (10.7%), spouses (2.7%), and other family members (10.7%). The distribution in the control group was similar. Almost three-quarters (72.3%) of caregivers of centenarians and 35.5% of control subjects were ill. Fifty percent of both groups self-rated their health as good to moderate. The Barthel index of centenarians was lower than that of controls (48.5 vs 76.3), which indicates that the centenarians had more trouble with ADLs than those in the control group. However, caregivers of centenarians had lower m-AF Q scores than those of controls except for daily fatigue (see Figure 1). Ill caregivers had higher m-AF Q scores, especially in anxiety and chronic fatigue, than healthy caregivers. Self-rated health became lower as m-AF Q scores worsened. ADLs of centenarians did not correlate with the m-AF Q, except in chronic fatigue.

It is impressive and interesting that family members who care for centenarians had a lower accumulated fatigue level, in spite of worse ADL abilities of centenarians and despite being older themselves. Furthermore, more than...