

## A Structured Intervention for Family Caregivers of Dementia Patients: A Pilot Study

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There has been an increasing number of patients with dementia in Japan. Although such patients were hospitalized longer than in other countries, the length of the hospital stay is becoming shorter due to changes in insurance systems. Therefore, the families of such patients are experiencing greater stress.

In order to investigate the efficacy of a group structured intervention, 20 family caregivers participated in a series of five weekly sessions, each of which consisted of an educational approach, problem-solving techniques, psychological support, and relaxation. All family caregivers were women whose ages ranged from 47-66 years (mean= 54.7 ± 4.4). The period of care at home ranged from 1-12 years (mean= 5.8 ± 2.7). Concerning the original disease of patients, 10 had vascular dementia and 8 had senile dementia of Alzheimer type (Alzheimer disease). Two psychometrics, i. e., Profile of Mood States (POMS) and General Health Questionnaire-30 (GHQ-30), were administered pre- and post-intervention.

The results indicated that there was significant improvement ( $p < 0.05$ ) in the scores of depression, anger-hostility, fatigue, confusion in the POMS, and physical symptoms, anxiety-mood disorder, and suicidality-depression in the GHQ-30. This preliminary study suggests that this kind of intervention appears quite effective for relieving the emotional and physical discomfort suffered by family caregivers.

**Key Words :** Dementia, Caregiver, Relaxation, Psychosocial Intervention

### INTRODUCTION

The number of patients with dementia is increasing in Japan. Typically, dementia patients had been hospitalized longer than in other countries, but this is rapidly changing because of changes in insurance systems. This has led to increased stress in the families of such patients. Traditionally, in Japan, the first son generally lives with his parents, and his wife does the housework. In addition, she would also have to care for her father/mother-in-law if they fall ill. Caregiving for elderly relatives often involves a long-term commitment and is extraordinarily stressful. Therefore, some caregivers for elderly family members join self-help groups because they need information about social resources and problem-solving techniques, and also need a chance to socialize.

This pilot study investigated the efficacy

of an intervention group coordinated by health professionals. The intervention group was developed for encouraging communication, providing a social network, sharing problem-solving techniques, learning the relationship between stress and physical/mental health, and acquiring stress management strategies.

### METHODS

The aim and methods of this study were explained at the monthly regular meeting of a self-help group for caregivers of elderly patients. The members of the group asked to participate in this study.

Twenty women who wanted to participate gathered for a more detailed explanation one week before the first session. At that time, two psychological tests, i. e., Profile of Mood States (POMS) and General Health Questionnaire-30 (GHQ-30), were administered and blood samples were drawn for the

pre-intervention data.

The structured intervention for caregivers was originally developed by one of the authors (T. H.) and its procedure is shown in Table-1. Briefly, it consists of 5 sessions, each of which takes 90 minutes. The subjects were divided into two groups, each of which completed the 5 sessions of the structured intervention without changing members. Each session was conducted by the two authors, i. e., a psychiatrist and a registered nurse (T. H. & Y. S.).

At the beginning of the first session, the

members introduced themselves, their family backgrounds, and the disease of the patient as fully as possible, although they knew each other to some extent. A more personal background was filled in a sheet distributed prior to the first session. After their self-introduction, one of the authors (T. H.) gave a lecture entitled "General concept of stress" as a psychoeducational approach. The women then underwent "Relaxation training" by listening to a 15-minute audiotape which was originally recorded for this study. The relaxation methods are based upon progres-

**Table 1** A structured intervention for family caregivers  
Five sessions of 90 minutes/session/week

Session	Procedure	Title
	Orientation, psychometry, blood sampling	Introduction
1	Self-introduction, Psycho-education Relaxation training	General concept of stress
2	Psycho-education Group discussion Relaxation training	Stress & physical disease Stress surrounding each individual
3	Psycho-education Group discussion Relaxation training	Stress & psychiatric disease Stress-related self conditions
4	Psycho-education Group discussion Relaxation training	Stress management Stress management of each individual
5	Group discussion Relaxation training Psychometry, blood sampling	What was learned in these sessions

**Table 2** Subjects

Number	20
Gender	All female
Age	47-66 years (mean= 54.7 ± 4.4)
Occupation	Part-time job: 7, none: 13
Disease of Care-Receiver	Vascular dementia: 10, Alzheimer disease: 8, rheumatoid arthritis: 1, hypoxic encephalopathy: 1
Care Receiver	Mother-in-law: 7, Mother: 7, Father-in-law: 2, Husband: 2
Duration of Home Care	1-12 years (mean = 5.8 ± 2.7)
Presence of cooperator	Yes: 9, No: 11
Use of Public Resources	Day-care: 7, Occasional short-stay: 6, None: 7
Caregiver's Health	Healthy: 5, Not-healthy, 15

sive muscle relaxation and autogenic training. In the second, third and fourth sessions, the women participated in “group discussion,” whose titles are listed in Table 1, in addition to the educational approach and relaxation training. During group discussion, the instructors occasionally intervened to explain problem-solving techniques. At the end of the fifth session, in which the subjects discussed “What was learned in these sessions?” and following relaxation training, they were administered the POMS and the GHQ-30 tests. Finally, blood samples were drawn in the same manner as for the pre-intervention data.

## RESULTS

In this study, 20 caregivers participated in and completed five sessions of training. All participants filled in two psychological inventories before and after the course of training.

All family caregivers were females whose ages ranged from 47-66 years (mean= 54.7  $\pm$  4.4), listed in Table 2. The period of home care ranged from 1-12 years (mean= 5.8  $\pm$  2.7). Concerning the original disease of the patients, 10 had vascular dementia

and 8 had senile dementia of Alzheimer type (Alzheimer disease). Nine of the 20 caregivers had no help in caring, and 7 were without public resources such as day-care centers, bathing services, and so on. Only 5 caregivers felt that they were completely healthy.

The blood samples taken were for measuring immune function, and the results will be published elsewhere. The results of the psychometrics showed significant improvement ( $p < 0.05$ ) in the scores of depression, anger-hostility, fatigue, and confusion in the POMS as shown in Figure 1. There was also significant improvement ( $p < 0.05$ ) in the scores of physical symptoms, anxiety-mood disorder, and suicidality-depression in the GHQ-30, as shown in Figure 2.

## DISCUSSION

It is well known that the stress of caregiving has negative effects on the psychological and physical condition of the caregivers. Rabins et al. reported that 80% of caregivers suffered from easy fatigability, depression, and anger. [1] More specifically, the incidence of clinical depression among caregivers was at least 10 times higher than in

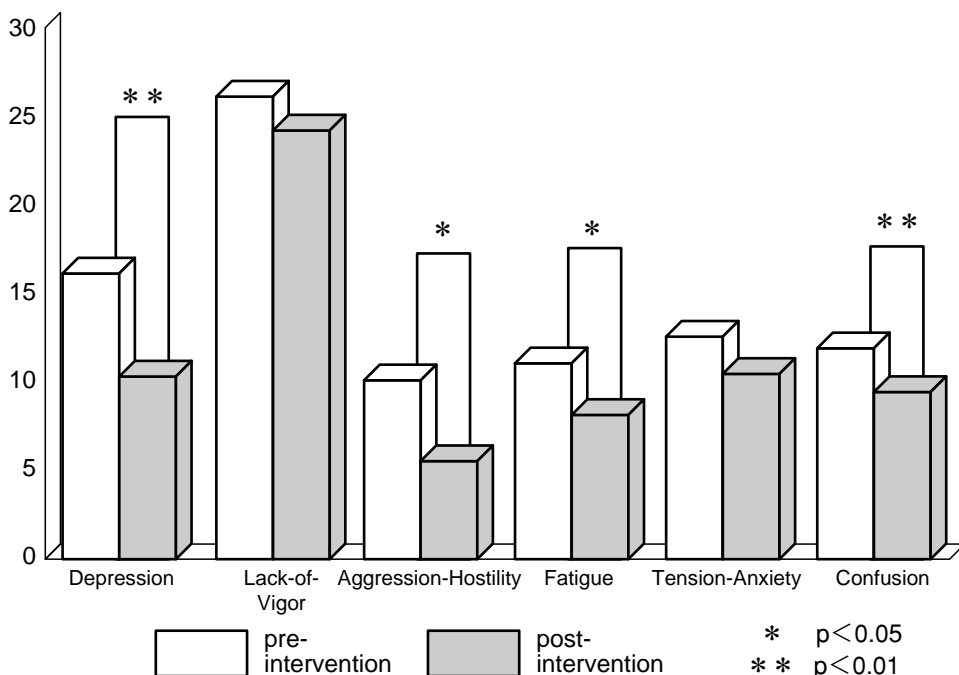


Fig. 1 Comparison of pre- and post-intervention POMS results.

the general population older than 65. [2, 3] Other psychological symptoms associated with caregiving are anxiety, tension, anger, and frustration. [4] Caregiving also can affect physical health [5] and immune functions. [6] Similarly, in this study, there were only five caregivers who felt that they were healthy, while 15 felt that they had physical and/or psychological problems.

There are several articles investigating the effectiveness of support for caregivers in other countries. According to a study by Mohide et al., a six-month intervention program produced clinically important improvement in the QOL (quality of life) of caregivers. [7] Toseland et al. compared the effectiveness of individual and group interventions for supporting family caregivers. Both interventions consisted of 8 weekly sessions. Their study revealed that both types of interventions improved the capacity to cope with care giving stress. [8] The present study, although preliminary, demonstrated that a course consisting of weekly sessions improved the psychological and physical discomfort of caregivers of dementia patients.

The elderly population is expanding very rapidly in Japan. From the perspective of medical economics, home care would be expected to continuously increase, especially among the elderly. This long-term home care for the elderly would be expected to be given by family caregivers, especially daughters-in-law. Indeed, 9 out of 20 participants in this study were daughters-in-law. There are several community-based self-help groups of caregivers for dementia patients, little has been documented concerning a structured intervention program for the caregivers and its effectiveness.

This study suggested that this kind of support was effective for relieving emotional and physical discomfort. Psychiatric interviews revealed that the caregivers had little time to be away from home, even for daily shopping. Such limitations are another source leading to a stressful situation. This means that many caregivers have little time to participate in this type of program, even if its effectiveness is known. In this study, some caregivers utilized day-care centers. In this context, it is will require modifications

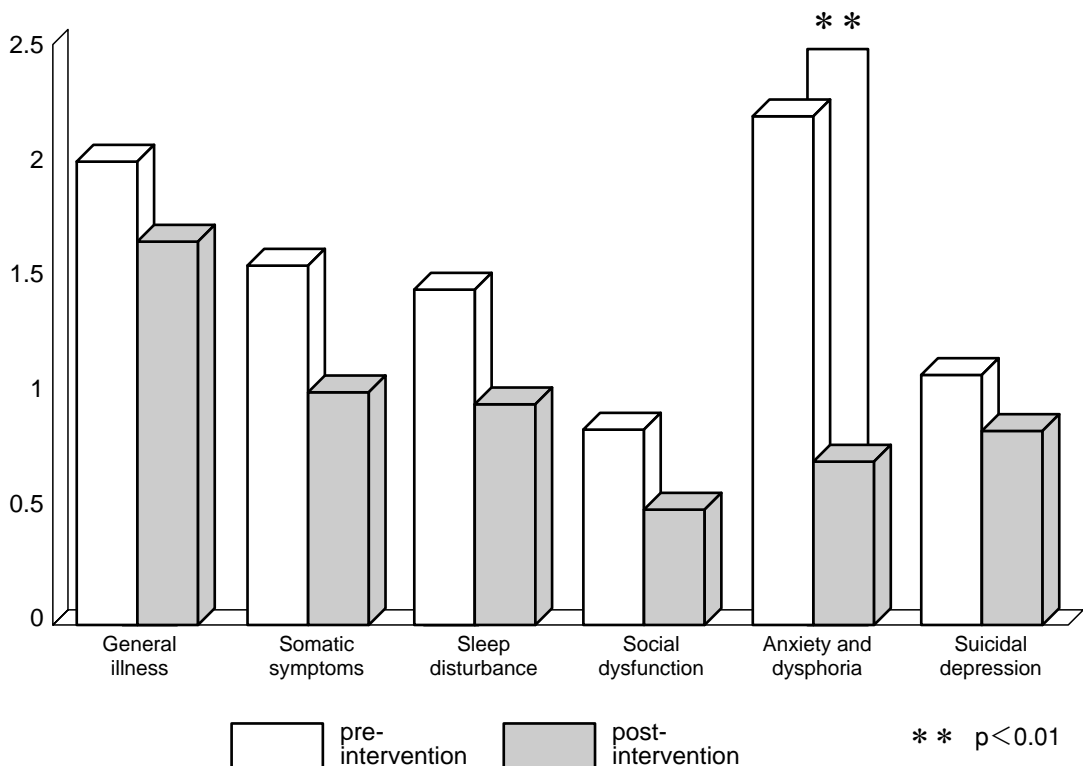


Fig. 2 Comparison of pre- and post-intervention GHQ 30 results.

such as a combination program, in which dementia patients are placed in a day-care program, while caregivers attend an intervention program. More research is needed in order to widely publicize the benefits of intervention for caregivers in a severely stressful situation.

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