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◆REVIEW ARTICLES

**A review on the perception of family caregivers' burden:**

**Classification based on patient and caregiver characteristics, relationship between patient and caregiver, and the community and social care support system**

Masakazu Murakami \* 1, \* 2 Mayu Fukuda \* 1 Misato Makino \* 2, \* 3 Hideki Yoshida \* 3  
Akiyoshi Takami \* 3

\* 1 Social Medical Corporation, Jinseikai Nishibori Hospital

\* 2 Doctor Course, Division of Health Sciences, Hirosaki University Graduate School of Health Sciences

\* 3 Division of Comprehensive Rehabilitation Sciences, Hirosaki University Graduate School of Health Sciences

This study reviewed the perception of family caregivers' burden. Regarding patients' characteristics, factors influencing the caregivers' burden were the level of cognitive function, behavioral and psychological symptoms of dementia, and the ability to engage in activities of daily living. Regarding caregivers' characteristics, factors influencing the caregivers' burden were quality of life, depression, health conditions, and monitoring time on patients. Regarding the relationship between patients and caregivers, there were few factors influencing the caregivers' burden. However, different relationships with the patients suggests that they may influence caregivers' burden and caregivers' mental health. The community and social care support system influencing the caregiver burden included the presence of persons to talk with about care, number of social services used, and use of short stay. The study also highlights the necessity of including data from longitudinal research.

Key words: Literature review, Perception of caregivers' burden, Family support

◆RESEARCH ARTICLES

**Relationship between levels of frailty and social environmental factors in community-dwelling older adults:**

**A pilot study**

Koichi Nagaki \* 1, \* 2 Shinya Hisano \* 3 Ryohei Kishita \* 1 Michiko Higuchi \* 4 Mariko Nakahata \* 4

\* 1 Department of Occupational Therapy, Kitakyushu Rehabilitation College

\* 2 Department of Neurology, Fukuoka University Graduate School of Medicine, Doctoral Program

\* 3 Occupational Therapy Department, Kyushu Medical Sports Vocational School

\* 4 Nursing Care Insurance Section, Yukuhashi City

This study aimed to examine the relationship between the levels of frailty and social environmental factors in community-dwelling older adults. The subjects are community-dwelling older adults who do not need long-term care insurance services. We used the Cardiovascular Health Study (CHS) to measure frailty and the Comprehensive Environmental Questionnaire for the Elderly (CEQ) for social environmental factors. Data were analyzed using Mann-Whitney U test and logistic regression analysis. As a result, pre-frailty was shown to be related to the CEQ score, suggesting that “To be helpful for others environment” is a factor associated with pre-frailty (OR = 2.922, 95% CI = 1.336-6.390). These results emphasize the importance of understanding social environmental factors for preventative care of community-dwelling older adults.

Key words: Older adults, Care prevention, Frailty, Pre-frailty, Social environmental

## **Effectiveness of occupational therapy on day care using Occupational Self Assessment version 2**

Toshihiro Ishidai \* 1, \* 2 Norikazu Kobayashi \* 3 Atsuko Tanimura \* 3

\* 1 Hatsudai Rehabilitation Hospital

\* 2 Doctor Course, Department of Occupational Therapy, Graduate School of Human Health Sciences, Tokyo Metropolitan University

\* 3 Department of Occupational Therapy, Graduate School of Human Health Sciences, Tokyo Metropolitan University

The purpose of this study was to investigate the effect of the Occupational Self Assessment version 2 (OSA II) on day care clients' health-related quality of life. The participants included 34 in-home clients who required long-term care. First, they were randomly assigned to either an experimental group that received a 3-month program with the OSA II or a control group that

received a regular 3-month program at the hospital. Second, the experimental group was classified into two groups: those who could do their occupation and those who could not. The health-related quality of life of each group was compared using the Medical Outcomes Study 36-Item Short-Form Health Survey version 2 (SF-36v2). In the experimental group, most goals were set to promote the clients' activities and participation by the use of the OSA II. There were no significant differences in SF-36v2 between the experimental and control groups. However, in the experimental group, the scores for the general health perceptions of the SF-36v2 in the group that succeeded in their doing occupations were significantly greater than those before the program. In those that did not result in occupations, the scores for social functioning of the SF-36v2 were significantly lower than those before the program. Our findings suggest that using the OSA II in outpatient rehabilitation programs can make it easier to set a goal to promote clients' activities and participation, and have an effect on the health-related quality of life of clients who can do their occupations.

Key words: Day care, OSA II, Occupational performance, Health related quality of life, Effect research

#### ◆PRACTICAL REPORTS

##### **The home-visit occupational therapy received by a terminal patient with a malignant tumor: Supporting the occupational being**

Hiroyasu Shiozu \*

\* Division of Occupational Therapy, Department of Rehabilitation Sciences, Faculty of Allied Health Sciences, Kansai University of Welfare Sciences

This case study details the home-visit occupational therapy received by a patient with a malignant tumor for approximately 5 months until just prior to her death. Once it appeared possible that the client could work again, our intervention allowed her to resume clothes-fitting tasks, which she had not performed since the onset of the disease, and to return to her occupation as a beautician. Furthermore, despite a deterioration in physical functions resulting from progression of the malignancy, her occupation helped her maintain a forward-looking outlook of wanting to work once again, allowing her to face her fear of death. The present study suggests the importance and significance of home-visit occupational therapy in supporting the occupational being with malignant tumors once they appear capable of resuming work.

Key words: Cancer, Home-visit occupational therapy, Occupational being

### **The process of task-oriented training for the affected upper-extremity in acute phase for a BAD patient**

Yuki Kimura \* 1 Takashi Takebayashi \* 2 Kazuhiro Tokuda \* 1 Kazuya Kaise \* 1 Toshiaki Fujita \* 3

\* 1 Department of Rehabilitation, Hanwa Memorial Hospital

\* 2 Department of Occupational Therapy, School of Health Science and Social Welfare, Kibi International University

\* 3 Department of Cranial Nerve Surgery, Hanwa Memorial Hospital

Stroke-induced arm hemiparesis has been widely reported, and results in a significant decline in quality of life for stroke survivors. Branch Atheromatous Disease (BAD) is a type of stroke which has resulted in a worse prognosis of upper extremity function than conventional stroke. The paper presents an account of a BAD patient whose upper extremity paresis deteriorated during the initial 2 days of hospitalization. From the acute phase, we treated for upper extremity paresis of the patients using task-oriented training to regain the meaningful occupation. Consequently, the affected upper extremity function improved more than minimum expectations, indicating an important clinical difference among acute stroke patients. This case study explains the process and results of occupational therapy for this BAD patient, and includes the functional prognosis for upper extremity function at the onset of BAD.

Key words: Prognosis prediction, Upper extremity, Stroke

### **Effectiveness of group-oriented occupational therapy programs employing an environmental setting for the elderly with dementia**

Junya Shiozawa \* 1 Yuji Koike \* 2 Masaru Mitsufuji \* 1 Ikuo Akamatsu \* 1 Toyohiro Hamaguchi \* 2

\* 1 Souai, Geriatric Health Services Facility

\* 2 Department of Occupational Therapy, School of Health and Social Services, Saitama Prefectural University

This report confirms the effectiveness of environmental settings in group-oriented occupational therapy program for the elderly with dementia. Fifteen subjects participated in the program for three months. The program was divided into the two parts: the environmental setting of the first part displayed desks lengthwise, and in the second part the desks were arranged in a semicircle so the subjects could interact with each other face-to-face. Subjects' behaviors and cognitive functions were evaluated using the Todai-shiki observational rating scale (TORS) and Hasegawa's Dementia Scale (HDS-R). Subjects' behaviors were significantly improved in TORS. No significant change was observed in the cognitive functions in the subjects during the intervention. The results suggest that the environmental setting of arranging desks in a semicircle improved the results of group occupational therapy.

Key words: Elderly with dementia, Group occupational therapy, Environmental setting, Behavioral change

**Efficacy of modified constraint-induced movement therapy with family participation on the affected hand of a hospitalized patient with severe upper limb paralysis after stroke: A case report**

Tomomi Harada \* 1 Takashi Takebayashi \* 2 Kenta Takeuchi \* 1 Shinichi Shimada \* 3

\* 1 Department of Physical Medicine and Rehabilitation, Itami Kousei Neurosurgical Hospital

\* 2 Department of Occupational Therapy, School of Health Science and Social Welfare, Kibi International University

\* 3 Department of Neurosurgery, Itami Kousei Neurosurgical Hospital

Constraint-induced movement therapy (CIMT) is a treatment for upper extremity motor dysfunction after stroke. Some medical clinics may not have the human resources to administer CIMT in the Japanese medical insurance system because of the prohibitively long hours of CIMT. We provided modified CIMT for a hospitalized patient with severe upper limb paralysis after stroke at a convalescent rehabilitation ward. In order to solve the problem of the lack of human resources, we signed a caregiver contract with the patient's wife who managed his self-exercise. As a result, we could provide therapy to the amount of 3 hours/day for the affected arm, resulting in improvements in arm function and amount of use, and quality of hand performance in daily activities. Furthermore, the patient achieved seven needs, including having a meal by affected hand, writing by affected hand and using a computer to prepare for the return to work.

Key words: Stroke, Upper limb function, Family

**Effectiveness of ADL training with a temporary hand prosthesis made from heat-reversible material by occupational therapist:**

**A case report**

Nobue Kobayashi \* 1, \* 2, \* 3 Katsutoshi Senoo \* 4 Takeshi Moriyama \* 3 Keiko Inoue \* 4

\* 1 Master's Program in Rehabilitation, Graduate School of Health Science and Technology, Kawasaki University of Medical Welfare

\* 2 Department of Occupational Therapy, Kawasaki Junior College of Rehabilitation

\* 3 Department of Rehabilitation Center, Kawasaki Medical School Hospital

\* 4 Department of Rehabilitation, Faculty of Health Science and Technology, Kawasaki University of Medical Welfare

A XX-year-old man suffered traumatic amputation of his II~V fingers from zone 5 (metacarpal) due to severe burn on the job. Although his thumb was saved, he couldn't grasp or pinch anything due to acute thumb contracture and digit amputation. Therefore, a temporary hand prosthesis was made from the heat-reversible material for making hand splints. This allowed the patient to acclimate to living with a temporary hand prosthesis before the construction of the genuine artificial hand. Wearing the temporary hand prosthesis resulted in increased frequency of using the right upper limb during ADL, and improved overall satisfaction.

Key words: Finger amputation, Temporary hand prosthesis, ADL