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◆RESEARCH ARTICLES

The influence of occupational participation on going outside and stress response: A cross-sectional study on community-dwelling elderly in a day-service center

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Purpose: Activity and participation focused rehabilitation is known to alleviate severe burden brought on by caregiving. The aim of this study was to identify the influence of occupational participation on going outside, stress response, severity of disability, and walking ability of elderly people using a day-service center.

Method: Subjects included 217 participants (88 males, 129 females; mean 76.21±8.99) who responded to a questionnaire based on demographic data, Self-Completed Occupational Index (SOPI), Stress Response Scale-18 (SRS-18), the severity of disability and the Timed UP & Go test (TUG). The data was analyzed using descriptive statistics and a structural equation modeling (SEM) approach.

Results: The SEM approach indicates that the modified model was an excellent fit: CFI=0.983, TLI=0.982, RMSEA=0.051. The results suggest that occupational participation has a positive effect on going outside (standardized direct effect=0.28) and a negative effect on the stress response (standardized direct effect=-0.34). In addition, the severity of disability affected occupational participation and going outside, and TUG affected going outside.

Conclusion: This study indicates that occupational therapy leads to satisfaction of social participation and mentality by improving engagement in the important activities for clients.

Key words: Occupational participation, Community-dwelling elderly, Going outside, Stress

Interaction in the communication room at a group home for the mentally disabled: Characteristics of occupational therapists as caretakers

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Field work in a group home for the mentally disabled focused on the interaction in a communication room between caretakers, including one occupational therapist, and the residents. The study intended to clarify the characteristics of caretakers' operations over a nine-month period. Participants were observed, and data were coded through quantitative and inductive analyses. Two top categories, 7 sub-categories and 23 concept codes were extracted. The study suggests that a characteristic of occupational therapists as caretakers was the special relationship formed with the persons through participating in activities, and that the communication enabled emotional interaction.

Key words: Group home, Mental disorders, Caretaker, Participant observation

Effect of application of Menthol on the forearm on tactile sensation in healthy subjects

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Recently, studies have shown that selective temporary forearm cutaneous anesthesia improved finger tactile perception. Increased cortical hand representation accompanied this finding. Researchers have reported that Menthol applied to the skin caused superficial analgesia. We hypothesized that the application of menthol patches to the forearm will improve the hand's tactile perception. The aim of this study was to investigate the effect of the application of menthol patches to the forearm on hand tactile perception. To accomplish this, we conducted two separate experiments. Experiment one had a group of seven healthy subjects and investigated forearm tactile

threshold after the application of menthol patches. The patches application resulted in an increase in forearm tactile threshold. The study indicated that cutaneous anesthesia of the forearm occurred after applying menthol patches. Experiment two was a randomized, controlled study that investigated the tactile perception of the hand in two groups of 19 normal subjects. The experimental group applied a menthol patch to the forearm while the control group received a placebo patch. The results indicate a statistically significant improvement of Moving 2pd in one segment of the experimental hand. However, the study found no statistically significant difference between the two groups in tactile threshold or Static 2pd in any hand segments. The study concludes that application of menthol patches to the forearm results in increased tactile threshold of the forearm and improved Moving 2pd of the hand. These findings suggest that application of topical menthol patches to the forearm will enhance tactile spatial acuity of the finger.

Key words: Healthy subjects, Menthol, Deafferentation, Tactile threshold, Tactile discrimination

The validity and reliability of the Psychiatric Day-care Adaptation Questionnaire

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It has been reported that many psychiatric day-care users discontinue the use of day-care within the first 1-3 weeks. In this study, the “Early Stage Adaptation Questionnaire clinical version 23 items for a psychiatric day-care” and State-Trait Anxiety Inventory were used to solve the problem of discontinuation, and examined validity and reliability of 249 patients, with the missing values being considered separately. In a factor analysis, the factor loading, criterion-related validity and the

Cronbach's alpha coefficient were examined. 7 items were deleted and 3 factors comprising 16 items were adopted. In addition, a parallel group study was carried out. The adaptive state of the psychiatric day-care users based on the "Psychiatry Day-care Adaptation Questionnaire 16 Items" was measured, and its usefulness for evaluation was demonstrated. The study supports users who are predominantly in the initial and maladaptive state.

Key words: Psychiatric day-care, Adaptation evaluation, Community rehabilitation, Scale validity, Scale reliability

The awareness of meaningful occupations through narrative approach to life for persons with in-home cerebrovascular disability

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Psychological intervention for persons with cerebrovascular disability living at home is needed in order to help them live a meaningful life with more valuable occupations. However, for such cases, there are few studies on psychological intervention. To verify the efficacy of a narrative approach to psychological intervention, 10 persons with cerebrovascular disabilities were interviewed about their life stories at home through narrative approach. The meaningful occupations which emerged were analyzed in accordance with content analysis, and the KJ method for structuring awareness. The results showed that the total number of labels regarding awareness of meaningful occupations increased from 41 to 57 after the intervention. Subsequently, some of the subjects' meaningful occupations changed; they had no clear hope in the future and obsessed about illness prior to the intervention, but they began to focus on specific feasible activities and human relationships after the intervention. A narrative approach to psychological intervention brought about realistic and concrete cognitive processes, enhanced understanding, and made the subjects ambitious enough to act in exploring their own way of life. It also increased awareness of their feelings of gratitude to family, to others and to life itself. This study suggests that the narrative

approach to psychological intervention leads to more meaningful occupations through enhancing awareness of one's own life.

Key words: Cerebrovascular disability, Narrative, Meaningful occupations, Self-awareness

Test-retest reliability for the measures of the probabilistic selection task modified for Japanese subjects

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Action selection process is influenced by positive and negative outcomes of similar past decisions. The positive and negative outcomes facilitate (Go-learning) and suppress (NoGo-learning) the action, respectively. The probabilistic selection task has been used to estimate the balance between Go- and NoGo-learning. For future clinical use, the present study applied this task to twelve college-aged Japanese students after some modifications of the protocol, and examined the test-retest reliability of the measures that reflect Go-learning, NoGo-learning, and its learning bias. As stimulus pairs, we used either photographs of nameable objects (animals or flowers) or Kamon (Japanese family crests) designated to minimize verbal encoding. Our data showed no difference in the performance between photographs and Kamon as stimulus pairs, which demonstrated that the test-retest reliability for the measures reflecting Go-learning and its learning bias was low when calculated from one test session (standard protocol), but greatly improved when averaged from two test sessions (modified protocol). These results indicate that this task can be used for evaluating individual learning bias in clinical situations.

Key words: Learning, Action selection, Probabilistic selection task, Basal ganglia

Relationship between circadian rhythm and physical activity of the elderly living at home

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We studied the relationship between circadian rhythm and amount of physical activity. Circadian rhythm values were measured using Actiwatch2, and physical activity value was measured using Actical in 71 (10 male and 61 female) elderly living at home. A resulting relationship between “active-rest rhythm” and the amount of physical activity was observed, but there was no indication of a relationship between “regularity of the life pattern” and the amount of physical activity. We suggest that the elderly can obtain a balanced circadian rhythm by increasing the amount of physical activity focusing on life activities, or at a more moderate intensity.

Key words: Elderly, Life, Amount of activity

◆PRACTICAL REPORTS

The effects of client-centered occupational therapy on stroke patients:

A preliminary study in a convalescent rehabilitation ward

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The purpose of this study was to evaluate the effects of client-centered occupational therapy based on an Occupational Therapy Intervention Process Model at a convalescent rehabilitation ward. Seven stroke patients participated in the study, which was based on a before-after design. The outcome evaluated activities of daily living, occupational performance, body function and anxiety to leave the hospital. As a result, all evaluations have improved significantly after intervention ($p < 0.05$). The change after intervention of activities of daily living (average change in Functional Independence Measure: 42.1) was higher than previous research. However, because this study had few subjects and there was no control group, the results are not generalizable. Future studies will show the need to generalize results by using the study design with convincing evidence and more subjects.

Key words: Intervention study, Convalescent rehabilitation ward, Client-centered, Occupation, Stroke

Supporting occupational therapists in group homes for mental disorders:

Recovering from prolonged social withdrawal

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The purpose of this study was to consider the role of the occupational therapist in

group homes for mental disorders. The subject was a schizophrenic patient suffering from prolonged social withdrawal due to auditory and cenesthetic hallucinations and delusions. Due to occupational therapy support, the patient recovered the activities and was able to live independently. The results suggest three roles of the occupational therapist in the group home: 1) Understand what the clients want to do and propose how to realize it; 2) Build a relationship through performing “concrete activities” and promote accumulation of the client’s experience, and 3) Help to recover clients self-esteem and motivate them to acquire new social skills.

Key words: Group home, Community life, Meaningful occupation, Hope

Characteristics of adults with high-functioning autism spectrum disorder or associated traits: Automatic thoughts, coping strategies for stressful situations and social adaptation

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An increasing number of adults with high-functioning autism spectrum disorder (HF-ASD) or its associated traits undergo psychiatric rehabilitation. However, adequate therapeutic methods for such individuals have not yet been established. This study considers characteristics of HF-ASD, and examined the differences between such individuals and healthy people in terms of cognitive characteristics (automatic thoughts), coping strategies for stressful situations and the degree of social adaptation of those with high HF-ASD tendency (+1SD), compared to those with low HF-ASD tendency (-1SD). A significant difference in automatic thoughts was found between +1SD and -1SD ($t=3.00$, $t=2.92$, $t=-3.52$, $p<.01$). Similarly, the significant difference emerged between +1SD and -1SD in the type of behavior and the degree of social adaptation (Emotion $t=2.89$, Social diversion $t=-4.80$, Social adaptation $t=-4.45$, $p<.01$). Based on this and previous studies, healthy people with high HF-ASD have the traits which induce depressive symptoms from the aspects of Cognition, Behavior and Social

adaptation.

Key words: High-functioning autism spectrum disorder, Healthy person, Mental disorders