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◆RESEARCH ARTICLES

Improving finger dexterity and chopstick manipulation in the non-dominant hand through ball rolling exercises in healthy young adults

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Difficulty learning has been reported in training chopstick manipulation by the non-dominant hand. Failed learning can lower motivation and learning capability. Thus, it is important to adopt alternative means to improve dexterity, accompanied by enhancement of chopstick manipulation. The present study aimed to evaluate the influence of ball rolling exercises on dexterity and chopstick manipulation in 17 healthy subjects (all right-handed), of the non-dominant hand once daily (20 minutes/session) 6 days a week for 4 weeks. The exercise resulted reduction of both the time taken and the subjective difficulty in both dexterity and chopstick manipulation. These results suggest that the effects of ball rolling exercises are comparable to chopstick manipulation training with the non-dominant hand. This exercise may be utilized as a new training method for dominant hand switching.

Key words: Chopstick manipulation, Dexterity, Non-dominant hand, Changing hand dominance

Support for people discharged from a rehabilitation hospital and living alone at flophouses in the Kotobuki area

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Aim: To understand the clients' needs upon being discharged from rehabilitation hospitals and living alone in flophouses in the Kotobuki area. Target and Methods: We interviewed and quantitatively analyzed three clients who were discharged from a rehabilitation hospital to flophouses using Steps for Coding and Theorization (Following, SCAT). Results: We found five factors influencing the clients' needs: association with their neighbors, money management, physical and motor function, daily activities, and living environment. Conclusion: The following three points are important for clients who are discharged from a rehabilitation hospital and live alone in flophouses in Kotobuki area. The first is to provide information for rapport building with the clients and support providers. The second is to get their understanding and agreement about health insurance expenses. The third is to provide flexible ideas to adapt their abilities of ADL and IADL to the living environment in the flophouse.

Key words: Flophouse, Discharge support, Quality of life, Qualitative research, Interview

The process of increased isolation from the community of single elderly men who use home-visit services

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This study aimed to clarify the process of increased isolation from community life of elderly men living alone and using home-care services in urban areas. To clarify the support provided by home care occupational therapy, interviews with 11 subjects were analyzed in accordance with a modified version of the grounded theory approach, and 26 concepts from eight subcategories of the following three main categories were extracted: "searching for coherent self", "inactive state that intensifies isolation" and

“recognizing self from interactions with people”. The “inactive state that intensifies isolation” can be avoided if “searching for coherent self” and “recognizing self from interactions with people” are positively understood; A negative understanding leads to the “inactive state that intensifies isolation”. The subjects can be characterized as having difficulties in daily life while being on the verge of being isolated due to being elderly, chronically ill, and without family or friends to depend upon. Moreover, the subjects were living alone and were confined by poor economic conditions and living environments that alienate people from each other. To prevent social isolation, it is important to support the psychosocial and participative aspects, while home care therapy should consider coherency in life, subjects’ attitudes toward work that they have given up on, economic conditions, and other factors.

Key words: Home-visit occupational therapy, Social isolation, Elderly, Community, Qualitative research

Development of the horizontal equating version in the Assessment of Positive Occupations

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To promote the well-being of persons with mental disabilities, assistance in continuing community life is important. Therefore, occupational therapy (OT) is expected to perform effective treatments to increase client well-being. To support the well-being of the clients more effectively, it is necessary to assess the status of the clients’ occupational participation. Thus, based on two studies we have developed an equalization scale that can generalize an intervention effect using item response theory. In study 1, in order to target the occupational therapists who are familiar with occupations that contribute to the promotion of well-being, 1) creation of the item pool, and 2) content validity of the study were conducted. 50 items (APO-50) regarding occupations were created which could contribute to the promotion of well-being. In study 2, mental disorders of individuals living in the community were targeted using a

demographic questionnaire and the APO-50. Answers were based on the APO-50, and we developed the equalization scale through item response theory. As a result, the equalization scale with two types of high measurement accuracy has been developed (TLI: 1.000, CFI: 1.000, RMSEA: 0.000). APO equalization scale accurately captured the changes in the client. In addition, APO equalization scale by item response theory effectively measured OT, and can be used to generalize the intervention results.

Key words: Horizontal equating assessment, Well-being, Item response theory, Effect measurement

Reliability and concurrent validity of the Ring gauge and Metacarpal head tape measure methods for measuring hand size

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The purpose of this study was to examine reliability and validity of a Ring gauge and Metacarpal head tape measure methods of determining hand size. The study sample included 40 normal consenting volunteers. Two examiners measured each hand of each subject two times. In the second experiment, concurrent validity of the method of fitting the Ring gauge and Metacarpal head tape measure method were examined using Figure-of-eight method as the measure criterion. The intraclass correlation coefficients for intra-and interater reliability obtained were 0.99 and 0.98 of the Ring gauge method and Metacarpal head tape measure method. Pearson product-moment correlation values between the Ring gauge method and the Figure-of-eight method were 0.76 to 0.84. The Metacarpal head tape measure method and the Figure-of-eight method were 0.91 to 0.94. The Ring gauge method and Metacarpal head tape measure method demonstrated excellent reliability and concurrent validity compared with the Figure-of-eight method. These results support the application of the Ring gauge method and Metacarpal head tape measure method as a reliable and valid evaluation tool for the assessment of hand size.

Key words: Hand, Edema, Evaluation, Reliability, Validity

Occupational therapy intervention using the Canadian Occupational Performance Measure in reducing pain-induced helplessness after total knee arthroplasty

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Pain catastrophizing has been reported to affect quality of life after total knee arthroplasty (TKA). This study aimed to determine pain catastrophizing and pain based on the Canadian Occupational Performance Measure (COPM), using a goal setting intervention. Patients who underwent TKA were classified into a COPM group (n=47) and a control group (n=45). Outcome indices were measured for pain catastrophizing through the Pain Catastrophizing Scale (PCS) and for pain through the Numerical Rating Scale (NRS). Data were analyzed using analysis of variance and post hoc analysis. A significant difference was found between the study groups and in the interaction time in the COPM group based on helplessness. The results demonstrate the effectiveness of occupational therapy intervention after TKA.

Key words: TKA, COPM, Goal setting, Pain catastrophizing, Pain

A qualitative analysis of QOL levels of elderly clients receiving continuous home care service

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In order to reveal factors affecting changes of QOL of clients who use home care services, we conducted narrative analyses by interviewing clients that show different patterns in the change of QOL. As a result, four stories were extracted: 1) a feeling of

self-esteem is regenerated followed by expression of self-efficacy, 2) a sense of security that arises from the knowledge that someone is in the environment, 3) gratitude and acceptance for every possible matter that could happen to oneself, and 4) conflict due to the impossibility of rebuilding one's life. Through this study, aid worker's support while paying attention to each client's feeling may contribute to improvement of QOL as empathic understanding between the two arises.

Key words: QOL, Elderly people, Home care service, Home-visit rehabilitation

◆PRACTICAL REPORTS

Occupational therapy for outpatients with cancer in a chemotherapy center: Intervention of a patient with Alzheimer's during chemotherapy

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This case report describes an Occupational Therapy (OT) intervention for outpatients with Non-Hodgkin Lymphoma (NHL) and Alzheimer's. OT for outpatients with cancer requires the following within a limited time: Understanding the symptoms, sharing patient's information with other occupations, providing the activities considering patient's symptoms, treatment content, treatment environment, respecting the patient's intention in the treatment selection, supporting the patient's family, countermeasures for patient's conditions in affecting continuation of the treatment, such as dementia, in addition to the risk management and the maintenance and improvement of ADL and IADL.

Key words: Occupational therapy to outpatient, Cancer, Chemotherapy

Feelings of a client with early-onset dementia and a family care giver

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The purpose of this study was to improve support for clients with early-onset dementia and family care givers in day care facilities through narrative analyses. We interviewed a man with early-onset dementia and his wife, and analyzed how they were interpreting their own care. We found that the client felt discord with his wife, and his wife worried about her own care attitude due to her consideration of him as a patient rather than a spouse. We regarded a discrepancy of feelings between them as a reason for their difficulties at home. The results indicate that they positively confronted “dementia” although they were anxious and dissatisfied. Therefore, it is important to understand clients’ and family caregivers’ needs and provide support in day care facilities by analyzing the reasons for their troubles at home.

Key words: Early-onset dementia, Care giver, Qualitative research, Occupational therapy

Assisting a woman achieve self-actualization at a long-term geriatric health services facility prior to passing away: A case study

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The following case study describes the process of a woman gaining self-actualization prior to passing away. The subject was moved to the author’s geriatric facility and remained about 7 years. Since the author was aware that laundry was a chore the subject felt strongly about, the woman achieved self-actualization through being put in charge of her own laundry at the facility. The subject was happy to do laundry except

when she didn't feel well. Doing laundry became a part of her life, and as a result she became to assert herself more to her family. In conclusion, because she was assigned a task of doing laundry, she was able to self-actualize until she died.

Key words: Occupational therapy, Role, Terminal stage, Washing

Psychosocial factors related to exercise modification in middle-aged and elderly persons in the participation of health promotion activities

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In this study, the association between the change of behavioral modification stage of exercise and the psychosocial factors of middle-aged and elderly persons who participated in the health promotion activities for one year were examined. Assessments were conducted through follow-up activities over a 1 year period and a 3 month period after the completion of the activities. Of the 18 people who participated in the study, 10 underwent behavioral modification in the active period, and the remaining eight were not observed. Through multiple- and inter-group comparisons, psychosocial benefits of receiving positive social support through family and friends exhibited more efficacy than exercise improvement. Thus, to enrich social networks and social support it is necessary for the promotion of behavioral modification of movement.

Key words: Health promotion, Behavioral modification, Psychosocial factor