



Original Article

The correlation between occupational performance and well-being in stroke patients

GANG-SEOK CHAE¹⁾, MOONYOUNG CHANG^{2)*}

¹⁾ Department of Rehabilitation Science, Graduate School, Inje University, Republic of Korea

²⁾ Department of Occupational Therapy, College of Biomedical Science and Engineering, Inje University: 197 Inje-ro, Gimhae, Gyeongsangnam-do 621-749, Republic of Korea

Abstract. [Purpose] This study was performed to evaluate the occupational performance of stroke patients and their environment by occupational self-assessment and to investigate the relationship between occupational performance and well-being. [Subjects and Methods] This study enrolled ninety-two stroke patients who were receiving occupational therapy at a general hospital, a rehabilitation hospital, or a community welfare center in the cities of Busan and Gimhae, Republic of Korea. Occupational performance and well-being were investigated with Occupational Self-Assessment Version 2.2 and the Personal Well-being Index-Adult. [Results] Analysis of the correlation between occupational performance as assessed by the “Myself” and “My Environment” sections of Occupational Self-Assessment Version 2.2 and well-being revealed moderate positive correlation for both sections. [Conclusion] The relationship between occupational performance and well-being was identified. Further studies are needed to reveal whether improvement of occupational performance could affect well-being in various dimensions.

Key words: Occupational performance, Occupational self-assessment, Well-being

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INTRODUCTION

Stroke affects quality of life through physical, mental, emotional, cognitive, and social damage^{1, 2)}. Interest in improvement of quality of life and rehabilitation is important because stroke patients suffer from various disabilities and various types of damage^{3, 4)}. The occupational performance occurs in the dynamic relationships among occupations, roles, circumstances where they live, jobs and leisure activities⁵⁾. By focusing on occupational performance, occupational therapists are able to support the client to actively participate in activities of daily living⁶⁾.

Well-being is described as the state of recognizing harmony in all aspects of life: satisfaction, pleasure, spiritual experience, and happiness. The goal of occupational therapy is to focus on those occupations that could maintain or improve a patient’s health and well-being⁷⁾. The belief that occupational performance is related to health and well-being is the basis of the fundamental theory and practice of occupational therapy^{8, 9)}, and it implies that an individual’s health and well-being can be enhanced by participation in meaningful occupations¹⁰⁾. However, there are few studies about the relationship between occupational performance and well-being. Furthermore, there are no studies that have examined the relationship between occupational performance as assessed for oneself and one’s environment and well-being. Thus, the purpose of this study was to evaluate the occupational performance of stroke patients and their environment by occupational self-assessment and to investigate the relationship between occupational performance and well-being.

SUBJECTS AND METHODS

The stroke patients participating in the study were receiving occupational therapy in the cities of Busan and Gimhae,

*Corresponding author. Moonyoung Chang (E-mail: myot@inje.ac.kr)

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Republic of Korea, and there were 92 participants in total (61 males, 31 females). The study was approved by the Inje University Institution Review Board. The mean age of the participants was 52 ± 11.41 years. The time since stroke was less than 12 months for 38 patients and more than 12 months for 54 patients. The targeted stroke patients were those without cognitive impairment as indicated by a score of at least 24 points on the Mini-Mental State Examination-Korean version (MMSE-K).

Occupational Self-Assessment Version 2.2 (OSA) and the Personal Well-being Index-Adult (PWI-A) were used for evaluations. A total of 101 questionnaires were distributed; 9 returned questionnaires were excluded because of incomplete responses, and 92 were included. The OSA was created by Baron, Kielhofner, Iyenger, Goldhammer, and Wolenski¹¹). It has 29 questions divided into two sections: 21 questions in the “Myself” section and eight questions in the “My Environment” section. For the OSA, the participant first scores his/her level of performance for each activity on a 4-point scale. Then the participant scores the importance of each activity on a 4-point scale. Finally, the participant indicates in order of importance 4 of the 21 “Myself” items they would like to change, and they also do this for 2 of the 8 “My Environment” items.

The PWI-A was designed based on the Comprehensive Quality of Life Scale¹²), and it consists of 8 items: “Standard of Living”, “Personal Health”, “Achieving in Life”, “Personal Relationships”, “Personal Safety”, “Community Connectedness”, “Future Security”, and “Spirituality/Religion”. The level of satisfaction is scored from very unsatisfied (0 points) to very satisfied (10 points) on an 11 point scale for each item. A reliability survey showed that Cronbach’s alpha was between 0.70 and 0.85 and that there was good test-retest reliability, with an intra-class correlation coefficient of 0.84¹³). The PASW Statistics 18.0 software was used for the analysis, and Pearson correlation analysis was applied to investigate the relationship between occupational performance and well-being.

RESULTS

“Getting along with others” (2.80 ± 0.79) was scored highest among the 21 “Myself” items for occupational performance, and “managing my basic needs” was scored second highest. “Taking care of others for whom I am responsible” was scored lowest among the 21 “Myself” items for occupational performance (1.74 ± 0.77), followed by “being involved as a student, worker, volunteer and family member.” In importance ratings, “taking care of myself” showed the highest score, 3.41 ± 0.73 , followed by “managing my basic needs”. The least important item was “being involved as a student, worker, volunteer and family member”, the score which was 2.83 ± 0.83 (Table 1).

Table 1. Occupational self-assessment—“Myself” (Unit: scores)

Characteristics	Performance M \pm SD	Importance M \pm SD	I would like to change
Concentrating on my tasks	2.54 \pm 0.82	2.99 \pm 0.83	
Physically doing what I need to do	2.08 \pm 0.84	3.29 \pm 0.82	
Taking care of the place where I live	2.25 \pm 0.75	2.96 \pm 0.74	
Taking care of myself	2.21 \pm 0.77	3.41 \pm 0.73	1
Taking care of others for whom I am responsible	1.74 \pm 0.77	2.99 \pm 0.97	2
Getting where I need to go	2.24 \pm 0.91	3.15 \pm 0.75	
Managing my finances	2.16 \pm 0.89	3.00 \pm 0.86	
Managing my basic needs	2.72 \pm 0.79	3.40 \pm 0.66	
Expressing myself to others	2.61 \pm 0.76	3.04 \pm 0.71	
Getting along with others	2.80 \pm 0.79	3.14 \pm 0.74	
Identifying and solving problems	2.45 \pm 0.76	3.13 \pm 0.67	
Relaxing and enjoying myself	2.60 \pm 0.74	3.11 \pm 0.67	
Getting done what I need to do	2.30 \pm 0.84	3.27 \pm 0.59	
Having a satisfying routine	2.19 \pm 0.80	3.04 \pm 0.71	
Handling my responsibilities	2.31 \pm 0.85	3.08 \pm 0.79	
Being involved as a student, worker, volunteer and family member	1.93 \pm 0.76	2.83 \pm 0.83	
Doing activities I like	2.01 \pm 0.81	3.09 \pm 0.69	
Working toward my goals	2.15 \pm 0.88	3.32 \pm 0.66	3
Making decisions based on what I think is important	2.37 \pm 0.82	3.08 \pm 0.71	
Accomplishing what I set out to do	2.15 \pm 0.95	3.13 \pm 0.74	
Effectively using my abilities	2.02 \pm 0.89	3.15 \pm 0.71	4

Among the “My Environment” items for occupational performance, “people who do things with me” and “people who support and encourage me” showed scores of 2.66 ± 0.79 and 2.66 ± 0.82 , which were the highest scores. “The things I need to be productive” (1.94 ± 0.80) was the “My Environment” items scored lowest. Similar to tendencies in performance ratings, “people who do things with me” was scored highest (3.38 ± 0.66) and “the things I need to be productive” was scored lowest 2.99 ± 0.74 among the environment-related importance ratings (Table 2).

Among the 8 items of the PWI-A, “Personal Relationship” showed the highest satisfaction (5.32 ± 2.19), followed by “Spirituality/Religion” and “Standard of Living”. On the other hand, “Personal Health” showed the lowest satisfaction (3.26 ± 2.19) (Table 3). Analysis of the correlation between occupational performance as assessed by the “Myself” and “My Environment” sections of the OSA and well-being revealed moderate positive correlation. ($p < 0.05$) (Table 4).

DISCUSSION

In this study, occupational performance and well-being were measured in stroke patients through client-centered self-report questionnaires. A significant positive relationship between occupational performance and well-being was indicated based on analysis of the questionnaires.

The occupational performance of “getting along with others” was relatively well performed, but that of “taking care of others for whom I am responsible” was not. This implies that the stroke patients found it difficult to implement the role of an assistant due to disability but formed relatively better general relationships with others. The patients identified “taking care of themselves” as the most important factor and “being involved as a student, worker, volunteer and family member” as the least important factor. A previous study showed a similar tendency in stroke patients who focused on physical recovery and reduced effort toward social relationships and leisure activities, resulting in incomplete restoration to pre-stroke levels¹⁴.

Among the “My Environment” items for occupational performances, “people who do things with me” and “people who support and encourage me” were scored highest, which suggested that the stroke patients needed help from family and other people and were relatively well supported. This support, however, could deteriorate depending on their ability to perform activities of daily living after stroke and is an important factor that may prevent the resumption of work and return to pre-stroke life¹⁵.

Analysis of the PWI-A data showed that the patients were most satisfied in personal relationships and were least satisfied in personal health. Although “Personal Relationship” was scored highest point (5.32) among the 8 items, it showed a minimal difference compared with the other items. “Personal Health” showed the lowest level of satisfaction because of negative effects from physical disabilities after stroke. In other previous studies of life satisfaction among long-term stroke survivors,

Table 2. Occupational self-assessment—“My environment”

Characteristics	Performance M ± SD	Importance M ± SD	I would like to change
A place to live and take care of myself	2.38 ± 0.81	3.26 ± 0.57	
A place where I can be productive (work, study, volunteer)	1.99 ± 0.80	2.99 ± 0.74	
The basic things I need to live and take care of myself	2.29 ± 0.73	3.23 ± 0.63	1
The things I need to be productive	1.94 ± 0.80	3.00 ± 0.76	
People who support and encourage me	2.66 ± 0.82	3.34 ± 0.70	
People who do things with me	2.66 ± 0.79	3.38 ± 0.66	
Opportunities to do things I value and like	1.99 ± 0.86	3.15 ± 0.65	2
Places where I can go and enjoy myself	2.10 ± 0.83	3.10 ± 0.65	

Table 3. Personal well-being index—Adult

Characteristics	M ± SD
Standard of living	5.13 ± 2.18
Personal health	3.26 ± 2.38
Achieving in life	4.50 ± 2.13
Personal relationships	5.32 ± 2.19
Personal safety	4.62 ± 2.04
Community connectedness	4.32 ± 2.21
Future security	3.74 ± 2.14
Spirituality/Religion	5.13 ± 2.52

Table 4. Correlation between occupational performance and well-being

	Occupational performance (Myself)	Occupational performance (My Environment)
Well-being	0.432*	0.427*

* $p < 0.05$

the participants indicated difficulties in sexual activity and leisure activities and negative effects on satisfaction resulting from the inability to participate in physical activity and other handicaps of daily living^{16, 17}.

The limitations of this study include that it was confined to the cities of Busan and Gimhae, Republic of Korea, and that there were only 92 participants. In addition, it was not possible to examine variations in occupational performance and well-being because a follow-up study was not been performed. Despite these limitations, use of the OSA may be beneficial for clinical applications because it could aid in identifying the occupational performance and abilities of individual patients, setting patient goals, and client-centered treatment. Client-centered evaluation tools, which indicate performances, could be applied to various people with disabilities¹⁸. The results of these tools could be used by physicians to understand the patient's perspective about their own performance, and this could be applied to treatment plans¹⁹. Further studies are needed to investigate the long-term variation of occupational performance of stroke patients and to examine the impact on well-being of improvement of occupational performance. Furthermore, these studies should be applied to other diverse diseases.

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