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## Case Study

# The influences of client-centered therapy on the level of performance, the level of satisfaction of activity of daily living, and the quality of life of the chronic stroke patients

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Abstract. [Purpose] The purpose of this research is to take a look at the influences of client-centered therapy on the level of everyday life performance, the level of satisfaction, and the quality of life of the chronic stroke patients. [Subjects and Methods] This research used client-centered therapy with two chronic stroke and hemiplegia patients as subjects. The therapy was carried out once a day, five times a week, for thirty minutes at a time for four weeks. Also, five kinds of training were included in the medical treatment programs which were organized after the initial Canadian occupational performance measure (COPM) evaluations. Evaluations were carried out before and after the mediation. Changes in the level of everyday life performance level of satisfaction were measured using the COPM, and changes in quality of life were measured using the Stroke Specific Quality of Life Scale (SS-QOL). [Results] After the application of medical treatment, both subjects showed positive changes in terms of the level of everyday life performance, level of satisfaction, and quality of life. [Conclusion] Both subjects demonstrated improvements in all aspects of both outcome measurements which implied that a short client-centered therapy program could help chronic stroke patients improve some aspects of their life. **Key words:** Client-centered therapy, COPM, SS-QOL

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## INTRODUCTION

Generally, the therapeutic purpose of rehabilitation lies in making it possible for the clients to engage in their everyday life activities and social participations by coping and applying the therapy within the environments the patients belong to through the actual activities<sup>1)</sup>. Among many diverse approaches of such rehabilitation, the client-centered approach method is a method that is carried out by having the focus of the mediation be on the activity which the client wants to be able to carry out themselves. In other words, first, the client will select an activity intended to be carried out personally, and then, the client will practice so that the activity that was selected can be carried out by himself or herself<sup>2</sup>).

In previously existing clinical environments, the evaluations that were uniformly decided rather than measuring evaluation items that were actually desired by the client and were focused on quantitative changes rather than qualitative changes. Using client-centered mediations, the evaluation items can be organized according to the personal values and needs of the clients. And, in regards to the result the use of evaluation tools that are sensitive to qualitative changes is very important<sup>3</sup>).

The evaluation tools used in the existing clinical environment consist of uniformly defined evaluation items rather than the evaluation items that the client wants to perform practically. The performance evaluation used so far has been mainly focused on quantitative changes that measure only the functional changes observed in uniformly determined evaluation items, rather

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than changes in actual performance and satisfaction of clients by the performance, that is, qualitative changes<sup>3, 4)</sup>.

However, in client-centered interventions, it is important to use an assessment tool where the assessment items are organized by their immediate value and needs so that clients can become more involved and motivated to participate more actively in the process. It provides clients with an opportunity to choose meaningful activities for themselves and allows clients and therapists to set therapeutic goals together to encourage active client participation<sup>5, 6)</sup>. Also, in terms of results measurement, rather than merely focusing on changing the function of a given item uniformly, the use of evaluation tools focused on qualitative changes in performance has the advantage of helping clients become intermediaries that can improve the quality of actual performance beyond merely intervening to improve the impairment aspect<sup>5, 6)</sup>.

An evaluation tool that possesses all such aspects is the Canadian occupational performance measure (COPM). It is an evaluation tool of which the degree of feasibility and the degree of reliability are high and that can detect not only the aspects of the client but, also, clinically meaningful changes<sup>7)</sup>. As such, in this research, with the chronic stroke patients as subjects, it is intended to find out the changes in the subjects' levels of everyday performance, satisfaction, and quality of life through the application of the client-centered task therapy using the COPM.

## SUBJECTS AND METHODS

Regarding the subjects of this research, the research was carried out using 2 patients who pertain to the following selection criteria: They had received the diagnosis of having suffered from a stroke and, had been receiving hospitalized medical treatment at the K hospital located in Korea. Firstly, a person who received the diagnosis of stroke medically and who received the diagnosis of hemiplegia. Secondly, a person who was distinguished as not having any damage to the cognitive function by receiving 24 points or more on the Mini Mental State Examination-Korean version (MMSE-k). The general characteristics of the subjects are shown in Table 1. After sufficiently explaining about the purpose and method of this research to the clients and guardians, written consent was obtained from all the people concerned including the guardians, which confirmed their intentions to participate in this research. Also, this study adhered to the principles of the Declaration of Helsinki.

Regarding the evaluations prior to and after mediation by the clients in this research, the COPM was used to track the changes of the levels of everyday life performance and the levels of satisfaction of the clients, and, in order to measure the changes of the quality of life, the Stroke Specific Quality of Life Scale (SS-QOL) was used. COPM is an evaluation tool that treats clients as an active partner in the treatment process, not as a subject to be treated. The evaluation tool first selected five items that were considered to be important and desired in the field of self-management, productive activities, and leisure activities, and assessed the performance and satisfaction of the selected tasks according to a 10-point scale. Pre-post-test results are generally considered to be clinically meaningful if the change in performance and satisfaction is two or more points. The test-retest reliability of COPM was reported to be 0.848. The SS-QOL, which was used to measure the quality of life of the client, is an evaluation tool consisting of 49 items in 12 domains and a 5-point scale. The reliability of each item is 0.73 or more<sup>9)</sup>.

In order to select the intervention activities, the therapist and client selected intervention activities based on a list of important activities obtained through the pre-implemented COPM evaluation results for the clients. Each participant was given a total of 600 minutes of intervention for a total of 4 weeks and was applied at a rate of five thirty-minute sessions per week. The five selected intervention activities for subject 1 were as follows; 'Moving from the hospital room to the treatment room alone', 'Taking a shower by oneself', 'Brushing their teeth alone', and 'Changing clothes by oneself'. The 5 selected intervention activities for subject 2 were as follows: 'Climbing up the stairs', 'Taking the shower by oneself', 'Moving from a hospital room to a treatment room alone' and 'Doing the measures after defectation or urination alone'. The practitioners consisted of two occupational therapists who are certified, each of whom has been involved in the treatment of stroke patients for more than five years.

#### RESULTS

All subjects showed an improvement in the level of performance of everyday life activities, level of satisfaction, and quality of life after the mediation (Tables 2, 3).

## **DISCUSSION**

The purpose of this research was to apply client-centered therapy onto chronic stroke patients and find out the changes of their levels of everyday life performance, levels of satisfaction, and their quality of life resulting from it. As a result of this research, it is possible to observe positive change in all of the subjects. In subject 1, change of less than 2 points were recorded with regards to the level of performance of 'Taking a shower alone' and with regard to the level of satisfaction of 'Doing the measures after defectation or urination alone', and in subject 2, changes of less than 2 points were recorded in the level of performance of 'Doing the measures after defectation or urination alone'. With regard to all the other items, changes of 2 points or more were shown. In many previous studies, it had been stated that, by improving the motivation of the client for the medical treatment and by making them actively participate, the client-centered therapy helps maximize the therapeutic

Table 1. General characteristics of the subjects

	Age	Gender	Diagnosis	Affected side	Month from stroke onset	MMSE-k
Participant 1	58	male	ischemic	Rt.	8	26
Participant 2	56	female	ischemic	Lt.	16	28

Table 2. Pre- and post-intervention scores and differences of COPM

COPM		Performance		Satisfaction			
СОРМ		Pre	Post	Difference	Pre	Post	Difference
Participant 1	Moving from the hospital room to the treatment room alone	3	5	2*	3	6	3*
	Taking a shower by oneself.	2	3	1	4	6	2*
	Brushing the teeth alone	2	4	2*	4	6	2*
	Changing the clothes by oneself	2	4	2*	3	6	3*
	Doing the measures after defecation or urination alone	3	5	2*	4	5	1
Participant 2	Climbing up the stairs	4	6	2*	2	5	3*
	Taking the shower by oneself	3	5	2*	1	4	3*
	Moving from a hospital room to a treatment room alone	2	5	3*	1	4	3*
	Brushing the teeth alone	3	6	3*	2	5	3*
	Doing the measures after defecation or urination alone	4	5	1	2	4	2*

COPM: Canadian occupational performance measure.

Table 3. Pre- and post-intervention Scores and Difference of SS-QOL

SS-QOL	Pre	Post	Difference
Participant 1	145	156	11
Participant 2	165	183	22

SS-QOL: Stroke Specific Quality of Lifes.

effects and has the effect of making the clients aware of the problems they possess by themselves<sup>10, 11)</sup>. This point coincides with the results of this study, too. Also, in the previous studies<sup>10, 11)</sup>, it had been reported that the diminished capability to complete everyday life activities due to stroke interferes in a stroke victim's social life, damages the independent activities of oneself, which is followed by resultant stress and lower self-esteem. Ultimately the client's quality of life goes down. In this study, too, the results which support the results of previous studies were shown with regard to the point that, through client-centered therapy, improvements in the levels of everyday life performances, levels of satisfaction, and quality of life can be obtained<sup>12)</sup>.

However, in terms of the limitations of this research, we can mention that there is a difficulty in generalizing the results because the number of subjects is too small, the short time period of the study, and the fact that a control group could not be secured. I believe that, as such, in the studies conducted later on, the securing of more subjects, long-term tracing and observations, and the securing of the appropriate control groups must take place.

## Conflict of interest

None.

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<sup>\*</sup>Clinically significant change is 2 or greater.

#### [Medline] [CrossRef]

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