

# **The Outcomes of Seamless Self-care Training between Occupational Therapist and Nurse in Stroke Patients**

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## **Study protocol**

*The conventional group* received washing oneself and dressing training from the same OT in the occupational therapy unit for 3 days. On the 4th day of training, the OT supervised the patients while performing these tasks in the rehabilitation ward. After that, a nursing staff took responsibility for these activities in a traditional way of nursing care until day 14. Duration of training session was one hour per day.

*The experimental group* received the new “seamless self-care training” technique, which was characterized by a collaboration between OTs and nurses. The training team consisted of two OTs with standardized training skills according to the self-care checklist for dressing and washing oneself (see appendix). The patients received training in the occupational therapy unit for 2 days and then were supervised by OTs at the rehabilitation ward for the next 2 days. On the 4<sup>th</sup> day of the training, one nursing staff came along with the OT in order to learn how to facilitate the patients according to their abilities to carry out these tasks. After that, the patients received further training from the nursing staff until day 14. Duration of training session was one hour per day. In this group, the nursing staff guided the patients to perform dressing and washing oneself according to the self-care checklist for dressing and washing oneself.

In both groups, each patient was in contact with and trained by only one OT and one nurse throughout the period of the study.

In order to reduce cross-contamination of the training techniques, each technique was delivered in separate periods of time. We first finished collecting data in the conventional group for one month and then conduct the seamless self-care training technique with the experimental group. During the study, patients received physical therapy or other treatments that did not affect dressing and washing oneself abilities.

### *Outcome measurement*

For the main outcome, patients' abilities in dressing and washing oneself were evaluated by another OT on day 1 and day 14 of the program in both groups. However, since there were no specific detailed measurements for assessing such abilities after a stroke, the authors developed steps of dressing and washing oneself, so called “Self-care checklist for dressing and washing oneself”. Based on task analysis, these two self-care activities consisted of 5 sequential activities: taking off a shirt, taking off pants, washing oneself, putting on a shirt and putting on pants. Each activity was composed of 4 steps, so there were 20 steps in total. Each step could be scored as 0, 1, or 2. A score of 2 meant the patients could perform the task independently, while 1 meant the patients could do the task with verbal cueing, and 0 meant the patients could not perform the task within 5 minutes or needed assistance to complete the task. Therefore, the maximum score was 40 for the independent performance measurements of dressing and washing oneself. This checklist had a high correlation with the Modified Barthel Index as analyzed with Spearman's correlation  $r = 0.764$ ,  $p < 0.001$ .

## **Statistical analysis plan**

Demographic and clinical variables were summarized using descriptive statistics. Continuous variables were described as mean with standard deviation (SD) and median with an interquartile range (IQR). Categorical variables were described by frequency and percentage. Statistical data analysis was performed using SPSS, Version 18.0, and a p-value of 0.05 was considered to be statistically significant. The differences in the outcome of self-care training and self-efficacy

between the two groups were analyzed by independent t-test, or within group by paired t-test, while differences between groups covariate by day 1 were analyzed by analysis of covariance (ANCOVA). The gain level was analyzed by chi-square test for assessing trends.