



Service Priorities and Programmes
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The Effect of Self-administrated Structured Task-oriented Upper Limb and ADL Training Program on the Functional Recovery of Upper limb in Stroke Patients

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Introduction

Stroke leaves survivors with different severities of disabilities which affect their daily activities. Upper limb functional training is one key intervention of Occupational Therapy in stroke rehabilitation. But in clinical practice, time constraints are emphasized in contributing the activities of daily living (ADL) and functional recovery of upper limb in stroke patients. Expanding the rehabilitation from hospitals-setting to home-based setting is a newly-raised idea to optimize patients' functional recovery and reduce the cost in hospital-based rehabilitation.

Objectives

Self-administrated structured task-oriented upper limb and ADL training program. Addressing the ambulatory service may not be readily available to support the patients who are ready for discharge. A pilot day rehabilitation program (DRM) was commenced from Dec 2016 in Tuen Mun Hospital. This program mainly facilitates timely discharge and provides seamless rehabilitation training in bridging the time gap between discharging from in-patient and waiting period of attending out-patient rehabilitation training. To further enrich rehabilitation training intensity in DRM, occupational therapists introduced a self-administrated structured task-oriented upper limb and ADL training program to enhance functional recovery in stroke patients. The principles of the self-administrated structured task-oriented upper limb training program are "home-based", "activity-oriented" and "patients' self-administered". Patients were designated with structured and individualized training activities based on their functional level of upper limb and ADL independence.

Methodology

A self-administrated structured task-oriented upper limb and ADL training program were prescribed to patients admitted to DRM. Patients' compliance to the program was reviewed and recorded weekly. Patients would be categorized into different groups by means of compliance to the program; and their functional recovery would be separately assessed at the end of DRM training. A pre and post-test design was adopted. Outcome instruments include functional upper limb assessment (FTHUE)

and functional assessment (MBI). The data were analyzed by paired sample t-test in IBM SPSS.

Result

From Dec 2016 to Dec 2017, 15 patients diagnosed with stroke in pilot DRM receiving self-administrated structured task-oriented upper limb and ADL training program; their compliance of program, functional recovery and level of upper limb were assessed. 87.5% patients complied "Good" or above to the program. From paired samples t-test, the mean in FTHUE and Modified Barthel's Index among all patients was found to significantly improve before and after the program ($t = -3.674$, $p = 0.003$; $t = -0.489$, $p = 0.033$). This indicated both DRM and the program contributed to the improvement in functional upper limb level and ADL independence. Although improvements of ADL independence and functional upper limb level between patients with varied compliance were not statistically significant different ($p > 0.05$); it may be due to the limited number of subjects in comparing different compliance level groups of patients. From the program, it showed that patients are motivated and their compliance levels towards the self-administrated structured task-oriented upper limb and ADL training program are high. The ideas of activities-oriented and patients' self-administered are effective in upper limb and functional recovery of stroke patients.